THE LANCET.

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An Address
ON
THE PATIENT AND THE DISEASE.

Being the First Hunterian Society Lecture for the Session 1914–1915 delivered in the Barber Surgeons' Hall on Oct. 14th,

BY SIR DYCE DUCKWORTH, BART., M.D., LL.D., F.R.C.P.,

CONSULTING PHYSICIAN TO ST. BARTHOLOMEW'S AND THE ITALIAN HOSPITALS; SENIOR PHYSICIAN TO THE SEAMEN'S HOSPITAL, GREENWICH.

MR. PRESIDENT AND GENTLEMEN,—I suppose that the name and work of John Hunter are suggestive rather of anatomy and surgery than of general medicine, but it needs no assurance from physicians to testify to the value of his influence and research on many parts of their art. We are, or certainly ought to be, as ready as the surgeons to carry in our minds his famous aphorism—"Don't think, try, be patient, be accurate." Let us consider the real meaning that this somewhat cryptic statement had for Hunter.

THE IDEALS OF JOHN HUNTER.

Research by way of experiment was urged by him just as it had been enjoined previously by Harvey, and the problems in biology which engaged their attention were attacked by similar methods. Mere theories were to be put to the proof, and the secrets of Nature were to be exposed, if possible, and tested by the ordeal of experiment. This was to be the test of the thinking. Any inquiry necessitating research demands meditation, and to correlate the facts elicited from an experiment no less entails a large measure of thinking. Hunter clearly intended to denounce mere theory unsupported by facts. Next he urged patience. This was surely to secure further or confirmatory experiments, and a calm meditation on the results of them. There was to be no hurry or premature disclosure of the conclusions derived from early experiments. New facts were to be weighed, pondered over, and checked by repetition. Research on these lines could alone, in Hunter's opinion, lead to the last point in his aphorism—viz., accuracy or truth as its guiding principle.

It may be well for us to consider how we are carrying out Hunter's advice to-day, at a time when scientific research is more widely and actively pursued than it has ever been, so far following out his recommendation to "try" in many directions. With respect to some of these observations which bear more particularly on therapy, I venture to doubt if we are thinking or meditating adequately upon the results obtained in practice. I doubt still more if we manifest the patience which Hunter would have demanded ere we announced and urged an immediate application of some of the methods which are indicated as warrantable and safe for the treatment of the sick. The human problem is before us here, and we are on holy ground. Surely patience, meditation, and accuracy are the points we need to attend to to-day if we are to unlock the secrets of Nature, and hurry, with eager strain for results, is unseemly in such tasks. Without doubt we are naturally desirous of worthy and dependable results. The public, too, stimulated by a vulgar and debased press, is still more greedy for startling novelties of which it is keen to seek the benefit at our hands, if we are so unwise as to experiment upon them. Indeed, so keen is a section of the public, often well placed and supposed to be intelligent, in this matter that it prescribes for itself, partakes of the vaunted novelties, and becomes, alas, sometimes addicted to drug habits in consequence.

THE DIRECTION OF EDUCATED TREATMENT.

I have recalled to you some of John Hunter's principles. I ask you to consider the patient and the disease, and I propose to try to enforce the very plain and simple fact that when we are contemplating disease we have necessarily to consider the subject of it as well. This is not seldom lost sight of. We find books and numerous monographs written distinctly on the subject of treatment for various diseases. It appears to be forgotten that the educated physician treats *patients* and not *diseases*. It is true that many of our modern remedies which issue from the laboratory are mainly for the purpose of combating morbid conditions of the body, and when these consist of specific vaccines or sera which have the power of overcoming specific toxins, we must recognise their value apart from any special features or peculiarities of the particular patient requiring such treatment. The need for such measures is commonly urgent, and time presses for their employment—

> Where the greater malady is fix'd,
> The lesser is scarce felt.

Thus meningitis, diphtheria, rabies, plague, anthrax, and tetanus admit of no delay in such therapy. In the treatment (preventive) of variola and enteric fever, of syphilis, gonorrhœal arthritis, and several other septic conditions there may be less urgency, and the peculiarities of the patient may often be of minor importance and can wait.

This class of modern remedies is commonly of a specific nature, and its successful employment in many cases is rightly regarded as evidence of the scientific progress of medicine, a progress which is destined ultimately, as some believe, to abolish all empirical or old-fashioned methods of treatment. We are gradually learning to employ these agents more and more, but much remains for further clinical research and a more accurate knowledge of their action. It may be noted that vaccine therapy itself is not yet void of empiricism. Multivalent vaccines, for example, are somewhat akin to the "blunderbuss" prescriptions of a century ago, and yet they sometimes prove of value. I suppose that not a few of us are far from satisfied with the efficacy of tuberculin treatment, or of the value of pneumococcal vaccine in cases of pneumonia; and we are not without evidence that some maladies, plainly of toxic origin, are amenable to the older methods of treatment when vaccine therapy has failed to afford benefit. Amongst these may be mentioned alveolar pyorrhœa, some varieties of acne, and bacilluria. I should always prefer to begin with the older methods before resorting to vaccine treatment, and I would venture to suggest that some of us are now in danger of losing the older acquired knowledge of appropriate treatment for many common ailments.

It is, of course, a vulgar idea that medicines are employed to "cure" diseases. The homœopathic system is founded on nothing else. The charlatan treats diseases. The modern chemist prepares his proprietary compounds to cure diseases. The idea of the patient, and any of his peculiarities, receives no consideration whatever, and is supposed to be

of no importance. I think that it may safely be asserted that with the progress of what we term scientific medicine, issuing largely from researches made in the laboratory, the attention of the physician has been much diverted from his patient, and directed to microbiology and biochemical matters. To state this bluntly is in no degree to minimise the supreme importance of these essential studies, but it is necessary to have a wide outlook in this matter, and to watch the outcome of it in medical practice. Modern methods certainly lead sometimes to a rapid diagnosis arrived at by bacteriology, thus yielding important knowledge by a short cut. We find that modern surgery sometimes provides a prompt diagnosis of inoperable conditions which might have been secured by patient clinical investigation without the knife.

We know well that novelties in medicine tend to obsess weak minds for a time, but some of these obsessions may be serious for the patient. To be rendered edentulous in middle life, or earlier, because of a scare of alveolar pyorrhœa which, if it exists, has not been appropriately or adequately dealt with, is surely a grave matter. To regard the large intestine as little else than a misplaced sewer and a vast source of septic mischief, necessitating its ablation on such grounds, may surely be very serious for the patient. To neglect careful examination of all parts of the body in seemingly obscure cases, and to resort promptly to bacteriological inquiries in the absence of such investigation, is hardly a wise or profitable proceeding, especially if a review of the case by thorough clinical methods readily reveals some gross disease overlooked and unsuspected. I venture to believe that in these and other ways we are tending to lose sight of the patient, and are too exclusively concerned with his disease. We are ceasing to pay adequate attention to details and to study the landmarks and varied indications of the individual patient. Our predecessors surpassed us in these methods. We have replaced them by various abstract studies bearing on disease, largely forgetful of the intrinsic interests of the individuals we minister to. Such proceedings may, perhaps, be inevitable for the present, but both patient and disease must rightly and always be considered together.

THE HUMAN ELEMENT.

In an address delivered last year[1] I expressed the opinion that practical medicine would never become a completely exact science. The human element in the case will always traverse the exactness and precision of pure science, and this factor may never be left out of account. The conception of clinical problems, and our dealings with them, necessitate an empirical element in our work if we be prudent physicians, and a large measure of that element will, as I believe, always remain to claim our careful attention and employment for the best interest of the patient. This matter relates strictly to the *art* of medicine, and it is our art that is now so much ignored and in danger of being lost. I have often remarked that a great physician is a great *artist*, and not a *savant* in the ordinary sense of that term. I would emphasise these words here and now. I suppose that the best physicians of their day have always recognised this position. It is certain, however, that many able physicians have contributed more to pure science than to the art of their profession. The father of medicine distinctly regarded his life-work as an art, and physicians as the servants or administrators of it.[2]

You may ask, What are the particular points which should be noted in patients apart from the morbid symptoms we may recognise? There are many of these. In the first place, there is a personal factor in every patient. We have therefore to discover what any particular ailment signifies to him individually. It may be well-borne or ill-borne by him. We try to ascertain his familial habit of body or specific inborn tendencies. The family history on both sides should be learned as far as possible. A history of previous ailments is important. The degree of recuperative power is found to vary much in different families. In some it is singularly slow, in others it is rapidly manifested. The measure of inherent vitality is found to vary greatly in families. That is a matter of textural or tissue resistance, and it is of singular importance to note in the maladies of aged patients.

Roughly speaking, we may readily observe the tendency to slow repair and a general vulnerability in all persons of a strumous habit of body. Such patients are bad subjects for most ailments. They heal unkindly. There is always the tendency to invasion of tuberculosis as a sequel to prolonged low health. In persons of the lymphatic diathesis we note the tendency to hyperplasia of this system, and should recognise such subjects of lymphatism as ill-fitted for anæsthesia or prolonged surgical operations. Yet in such persons we do not discover the special irritability of the lymph glands met with in strumous individuals. In patients of an arthritic habit of body we find, on the contrary, and not seldom, a large measure of resisting power with much vitality. Thus, a gouty predisposition, inherited or acquired, proves a great security against all forms of tuberculosis, and the textures are distinctly inimical to intrusion or development of tubercle bacilli in such instances. We may often note blended habits of body in individuals, as in the case of children of a gouty father and a strumous mother, the gouty element here proving a saving grace in the offspring as aiding in resisting tuberculosis, or materially checking its progress should tubercle bacilli lodge in their bodies.

It is surely obvious that our ability to frame prognoses in the illnesses of our patients is largely dependent on a careful consideration of such matters as these. To ignore them is to lead to erroneous opinions which must damage our reputation and usefulness as advisers of the public. It would reduce our powers to the level of the veterinary practitioner who is debarred largely from any consideration of such inquiries.

THE NEED FOR CLINICAL OBSERVATION.

I would now ask where such important knowledge is to be gained. Certainly not even in the clinical laboratory, for that is no place for gathering it. Neither will bacteriology, biochemistry, radiography, or cardiograms throw any light on the matter. Needless to remark, we need, and we value, all these modern revelations at the hands of experts, but we must avail ourselves of them as affording guides to treatment, and rest assured that by themselves they do not represent all the essentials for a successful practice of medicine. They yield no knowledge as to the personality, tendencies, and inherent textural qualities of our

[1] THE LANCET, Nov. 22nd, 1913, p. 1443, Some Requirements for Modern Clinical Teaching.

[2] "ὁ ἰητρὸς ὑπηρέτης τῆς τέχνης."

patients. The equipment we need in respect of knowledge of the individuals we treat is only to be gained at the bedside in daily practice. It demands great painstaking, and it occupies much time and thought. Panel practice, therefore, will accomplish little or none of it; hence our deep regret that such essential knowledge must perforce be withheld from large numbers of our worthy brethren who cannot possibly secure it in practice of that kind.

THE INDICATIONS FOR PARTICULAR TREATMENT.

I pass now to discuss some matters relating to the treatment of patients. We do well to recognise the limitation of specific remedies and to remind ourselves that they have been discovered by simple empiricism. If we mention sulphur, cinchona, ipecacuanha, mercury, and opium we almost exhaust the list. We now know a good deal as to the nature of the specificity of each of them. Empiricism has often provided problems for laboratory research, and will continue to do so. There are few specifics for the greater number of human ailments, although we have helpful remedies to encourage recovery from most of them. We are, or might be, well-nigh distracted with the numbers of alleged specific preparations, with names far more than sesquipedalian, which are daily commended to us, mostly the products of foreign ingenuity, with attestations as to their efficacy which could alone appeal to credulous minds or novelty hunters. Yet we find that many of these are now being prescribed in preference to the approved drugs of the Pharmacopœia.

Some amongst us are keenly alive to the fact that there has been for some time past amongst us a growing disregard for our national Pharmacopœia and a spreading ignorance of its formulæ. I venture to regard this as a serious matter, for it represents a lack and contempt of knowledge which is essential for success in practice and the real welfare of the patient. I fear there are few amongst us to-day who will thus openly express such an opinion, but I will place mine on record. Many of our prescriptions are now laughing-stocks for well-educated pharmacists who have to compound them, and they must wonder at our boldness and our credulity. I am very sorry for the patients of such prescribers. I need hardly remark that we duly note the progress of pharmacy in various directions, and the improvements in many of our formulæ in the Pharmacopœia. We could wish that the pharmacists were less occupied with the distracting novelties I have referred to, and could thus give their time and attention to more important matters of real pharmaceutical interest.

Opinions emanating from the chemical and other laboratories, non-clinical, are not always helpful to us as careful practitioners. Take the case of alcohol as a remedy. We are told that it is a poison and a devitalising agent, and that it has no place for use either in health or disease. The observant clinician, on the contrary, finds it to be extremely useful for the patient. We always knew that in certain doses it was poisonous, but we also knew that persons who used it in strict moderation lived their full term of life, and left no signs of any lesions in their body, which could honestly, and exclusively, be attributed to alcoholic influence. A physician is not a pure chemist, nor is he a pure physiologist. The tolerance for certain drugs is found to vary largely in different patients. Apart from pure idiosyncrasies, the beneficial effects of mercury in the dark-skinned, bilious, and arthritic subjects, and its less satisfactory action in the fair and strumous ones are hardly recognised to-day. Saline aperients are supposed to take its place in the former class, and mercury is now inadequately employed, or with timidity, for many patients. Not many of us have been taught, or have acquired, a knowledge of the value of sarsaparilla in large doses as a restorative remedy in many cachectic conditions. The influence of musk in sometimes turning the scale favourably in perilous conditions of pneumonia is not recognised to-day. These drugs have actually been discarded from the new Pharmacopœia about to be issued. Happily that will not prevent their employment. Our observant predecessors noted these matters, but their teaching has been forgotten or displaced. It did not issue from the laboratory, but from careful observation at the bedside and in daily practice. In regard to the use of opium, I think that we have parted with a good deal of experience bearing on its appropriate use by the mouth in many morbid states, and have come to rely too much upon one of its constituents introduced by way of the hypodermic syringe. Again, with respect to the virtues of cinchona, I think that we lose some of them by selecting so rigidly only one of its constituents for constant use.

The art of prescribing is not limited to mere convenience and rapidity of dispensing. The active principles of some drugs do not always represent the full benefits of the source of them. Those of us who have been trained in our great hospital schools know well the value of many of the formulæ set down in their pharmacopœias. They are always worthy of our regard, because they represent the experience of our observant masters who introduced or adopted them solely on account of their usefulness and power to aid recovery. Generations of their pupils have had good reason to discover this for themselves. There is no fashion or novelty in them, and many of them will, as I believe, be found helpful for all time. I have long been impressed by many of the prescriptions thus employed in the Dublin schools of medicine which have passed down from some of their great clinical masters, and still secure the confidence of their successors.

THE VALUE OF SYMPATHY.

In the best interests of the patient it is necessary for the physician to learn the art of skilled nursing as practised in these days. If he does not understand the details of this service he cannot be competent to direct the nurses who work under him. These duties can be best learned in hospitals with well-disciplined nursing schools, and it should not be neglected or ignored by the clinical clerks and dressers. It was said of one of our greatest clinicians at one time that he was equally able as a physician or as a nurse. Many of us, I doubt not, could testify to the useful teaching we have had from our hospital matrons and sisters.

We may never forget that what is termed the humanity of our profession relates not merely to kindness, gentleness, and sympathy. Our duties must take note of the specially human characters and varied peculiarities of the individuals we treat. This concerns very largely the management of patients, a great clinical art and equipment. We begin our professional work by studying Nature in all her forms, and, as Charles Kingsley remarked, "if we do not know Nature we cannot know Art."

TRUE PROGRESS.

Some of my remarks may lead you to regard me as a strange survivor of the early nineteenth century physicians, and my opinions as little available for the practical duties of to-day. I will, however, venture to remind you that real progress does not consist in wiping out the past. That idea comes from Germany. A prudent veneration for the best of what has been left to us is ever a wholesome sign of the minds that are to guide the future. Well-gathered experience will always count for much in practical medicine. Knowledge that comes too quickly and too copiously has often to be recast and modified, and the elders do good service sometimes by calling a halt for meditation, for open minds and level heads. Moderation is one of the few things that last long in this world.

Scepticism, pure and simple, never won, and never will win, anything in practical medicine, but it has led in time to wider views and a more sane comprehension of its difficulties. Credulity has been well-nigh as harmful, and it leads nowhere. As has been well said, "the wide man is the great man." There can be no narrowness in our art. So we come back to John Hunter and his methods, for we need to labour on by the light which they will ever afford. We have far greater difficulties to meet in our daily duties than fall to the lot of other workers, because we are dealing with our fellow man, an immortal soul-bearing human creature, more complex and strange than any other created being. The physician may never lose sight of this great fact, and it places him on a separate platform from that occupied by any other students of science. Ours is indeed the most human of all the professions. As I have already remarked, we welcome help from all sources of accurate knowledge conducted by experts, especially from those possessing clinical opportunities, and we must receive with caution the teachings which emanate from sources where work is carried on less for absolute accuracy than for gain or mere notoriety. We know well that medicine cannot stand still, for it is essentially a progressive art. Our motto should be "*Ausculta et perpende.*"

I have now only to ask you to consider any of my opinions in the spirit in which I have ventured to present them to you. My sole object has been to set before you what I humbly conceive to be the true relations which we ought to recognise in our practice between the patient and the disease. We must never lose a full consideration for the patient in any effort we make for his welfare and recovery, and we can have no fear that careful scientific progress and observation will fail to add to the perfection of our art.

EDINBURGH MEDICAL MEN AND COMPULSORY MILITARY TRAINING.—A discussion on Compulsory Military Training as it Appears to the Medical Profession was opened by Professor W. Russell at a meeting of the Scottish Medical Guild held in Edinburgh, on Nov. 13th. A motion was proposed that in the opinion of the meeting compulsory training was highly desirable in the interests of the physical and moral welfare of young men and for our national security, and that at the present juncture the members of the medical profession as represented at that meeting should undertake to do what lay in their power towards its attainment. Dr. Graham Brown seconded this motion, and said that we were the only nation in Europe whose men hired other men to fight for them. That was an unfair and undemocratic arrangement, because no man who was physically fit for service should be able to escape service. The proposition was unanimously adopted.

OBSERVATIONS ON MYELOID SARCOMA, WITH AN ANALYSIS OF 50 CASES.*

BY MATTHEW J. STEWART, M.B. GLASG., M.R.C.P. LOND.,

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THERE is perhaps no subject in the whole range of surgical practice where the coöperation of surgeon and pathologist is more necessary than in the case of myeloid sarcoma. Not only the extent of the operation but the ultimate prognosis depends finally on the histological diagnosis, although in most instances it is possible to say, from the naked-eye characters alone, whether or not one is dealing with a case of this kind. On the other hand, a perusal of the literature shows that errors in diagnosis may be made even where the growth is submitted to microscopic examination, and this is generally due to mistaking a malignant giant-celled for a myeloid sarcoma. Although it is the usual teaching nowadays that these growths (myeloids) are of very low malignancy, there still seems to be an unwillingness on the part of many surgeons to treat them by local excision, and this is undoubtedly due, as already indicated, to the fact that in the past cases of so-called myeloid sarcoma have been reported in which death with visceral dissemination occurred at a longer or shorter period after operation.

The purpose of the present communication is to emphasise the importance of distinguishing true myeloids from other giant-celled sarcomata, to advocate conservative treatment of such cases, and to indicate the histological criteria by which the microscopic diagnosis may be made. My remarks are based on an analysis of all the cases of myeloid sarcoma, 50 in number, treated at the Leeds General Infirmary during the years 1899 to 1912 inclusive. These have been investigated from both the clinical and the pathological standpoint, but special attention has been paid on the one hand to the question of prognosis, and on the other to the minute anatomy of the growths. Much of the confusion which at present exists with regard to these tumours must be attributed to different observers employing the same words to denote different things. Thus from a study of the literature it is clear that by some authors the term myeloid sarcoma is used to indicate any form of sarcoma in which giant cells occur in large numbers, while by others it is restricted to the class which I am now describing. It will be well, therefore, at this point to define precisely the terms to be employed in the present communication.

Giant-cell sarcoma is used in its widest sense as a term to include all sarcomata in which giant cells of blastomatous origin constitute an important, it may be the essential, feature of the microscopic picture. This large class is made up of two groups of cases: (1) the *myeloid sarcomata*, myelomata of some authors; and (2) the *malignant giant-cell sarcomata*. Probably the bulk of the latter could be described alternatively as polymorphous cell sarcomas containing giant cells, especially as one can usually find cells of all sizes, from the smallest to the largest; but in a certain number of cases the giant cells are so abundant and so striking that the employment of a special term, malignant giant-cell sarcoma, seems not only warranted but

* A paper read at a meeting of the Leeds and West Riding Medico-Chirurgical Society.

desirable. In order to obtain data for comparison I have traced five examples of this latter type of growth, and the difference in the clinical history of the two groups of cases is rather remarkable. My reasons for preferring the term "myeloid sarcoma" to "myeloma" I shall refer to later.

Current views on myeloid sarcoma.—Before proceeding with the analysis of cases I propose to review briefly some of the more recent authoritative opinions on this subject. With regard to prognosis Bland-Sutton[1] states quite unequivocally, "Myelomata do not infect lymph glands nor disseminate"; and, again, "A close study of the myelomata indicates that they differ histologically, pathologically, and clinically from sarcomata, with which they have hitherto been grouped." In a discussion at the Royal Society of Medicine on myelomata and sarcomata of long bones in December, 1912, the same author says,[2] "No one will deny that the separation of myeloid tumours from sarcomas has been justified by experience, and many useful limbs have been saved in consequence." In America Bloodgood,[3] of Baltimore, is an ardent exponent of the same view; and he has from time to time adduced important evidence in support of the conservative treatment of such cases. In a paper read before the American Surgical Association last year he states: "Up to the present time we have no proof that the pure giant-cell sarcoma ever metastasises. It is a question, therefore, whether it should be called a sarcoma." Eve[4] thinks that the malignancy of myelomata is partly dependent on their situation—e.g., he says: "The broad general statement made in some text-books that the myelomata are only locally malignant requires ..... considerable modification. The myelomata of the femur, and especially those of the upper end of the humerus, are sometimes followed by metastasis. ..... The nearer the body the greater the malignancy would appear to be true of the myelomata as well as of the periosteal sarcomata." He adds, however, "I suspect that the old statistics have been made less favourable by the inclusion among myelomata of a certain number of round- and spindle-celled tumours containing a few multinucleated cells such as are present in many rapidly growing neoplasms."

While strongly in favour of the view that true myeloid sarcoma is only locally malignant, in which respect it is analogous to rodent ulcer, I see no reason why it should not occasionally undergo sarcomatous transformation, as happens in the case of other benign connective tissue growths. To continue the above analogy, it would be on all fours with the development of epithelioma in a rodent ulcer, a well-attested clinical and pathological fact. This is the view expressed by Adami,[5] who says, "It does not form metastases, save in the infrequent cases in which it undergoes sarcomatous modification." Sims Woodhead[6] regards the tumour as essentially a spindle-celled sarcoma from the outset, and thinks the giant cells owe their presence to a mere accident of position—viz., in relation to a bone.† He says also, "The typical form seldom gives rise to secondary growths, but secondary tumours when found in the position ordinarily affected contain no giant cells; they are simply small spindle-celled sarcomas." Mallory[7] goes yet farther and regards the giant cells merely as so many foreign body giant cells. Yet other authors hold that myeloid sarcoma may give rise to metastatic deposits having a structure identical with that of the primary growth, and in the discussion at the Royal Society of Medicine Maybury[8] referred to two recent cases which he regarded as supporting this view. In the first of these the primary growth was in the lower end of the femur, and the limb was amputated through the upper third of the thigh. Death took place nine months later. In the second case the primary growth was in the innominate bone, and the patient, who was too ill for operation, died a month after admission. In both cases secondary deposits were present in the lungs, their nature being determined post mortem by microscopic examination. Through the kindness of Dr. Leonard Dudgeon I have been enabled to examine the slide from the growth of the femur in the first of those cases, and in my opinion it is not a true myeloid but a malignant giant-cell sarcoma. This is borne out by the results of the microscopic examination of the lung nodules, undertaken by Mr. W. Gough, the patient having died in the North Ormesby Hospital, Middlesbrough. His report is as follows: "In section, the tumour is a mixed-cell sarcoma. Most of the cells are spindles, but some irregular, round, and giant forms are found." I have not seen the sections from the second case, but the microphotograph suggests a mixed-cell sarcoma with giant cells (malignant giant-cell sarcoma) rather than a true myeloid.

† A similar view is expressed by Hamilton, Text-book of Pathology, 1889.

Analysis of Cases.

In every one of the 50 cases here recorded the diagnosis has been confirmed or made by microscopic examination of the tumour, and in 45 I have personally verified the pathologist's report. A systematic account of the gross morbid anatomy has been omitted, as only a very few of the actual specimens have been preserved.

Situation and frequency.—Of the 50 cases, 35 are from the jaws, 11 from the long bones, and 4 from other situations. This represents roughly an average of one long bone case and three jaw cases annually, since the total figures correspond to a period of 14 years. When one considers the number of surgical cases dealt with every year in the Leeds Infirmary, it is seen that the disease is relatively an uncommon one. The situation in 26 out of the 35 jaw cases is shown in the following: Upper jaw, 12; lower jaw, 13; both jaws, 1. The uniformity of incidence in the two jaws is remarkable. The latter case, which will be referred to later, is the only example in the whole series of a multiple lesion; in it there was one growth in the upper jaw and two in the lower.

The following shows the incidence in other bones: Femur, 6 (4 lower end and 2 upper end); humerus, 3 (2 lower end and 1 upper end); metacarpal, 3; tibia, upper end, 1; radius, upper end, 1; and coccyx, 1.

These figures are in rather striking contrast to Bland-Sutton's dictum, that the tibia is the favourite bone in the lower limb, the radius in the upper, but they are clearly far too few to warrant generalisations. In order to obtain data of greater significance I have added the 11 long bone cases of my series to 10 long bone cases collected by Gask[9] from St. Bartholomew's Hospital records—viz., those occurring during the ten years 1902 to 1911—and to 12 similar cases collected by Maybury[10] from St. Thomas's Hospital records—viz., those occurring during the 11 years 1901 to 1911. All these are cases which have been verified microscopically. The result is shown in the following: Femur, 19 (17 lower end and 2 upper end); tibia, 5 (all upper end); humerus.

4 (2 upper end and 2 lower end); radius, 4 (3 lower end and 1 upper end); and fibula, 1 (upper end).

It is a very striking fact that out of these 33 cases in more than half the disease was situated in the lower end of the femur; but the fallacy of generalising from a series such as this is well shown by comparing these figures with the cases reported by Bloodgood.[11] Here, in 10 cases out of 18, the tumour involved the lower end of the radius.

Age and sex incidence.—The age was ascertained in 49 cases, and the results may be shown in tabular form as follows:—

—	Long bones, &c.	Jaws.	All cases.
Under 10 years.	—	7	7
10-20 ,,	—	11	11
20-30 ,,	6	7	13
30-40 ,,	5	4	9
40-50 ,,	3	5	8
50-60 ,,	1	—	1

The table shows that myeloid sarcoma tends to occur at a somewhat later age in the long bones than in the jaws. In this series the average age at the time of operation was, in the former, 34 years, in the latter 20·6. Taking all cases together, we see that the disease occurs with singularly uniform frequency in each of the first five decades of life, and that above 50 it is exceedingly rare. If the two varieties be studied separately it is seen that in the case of the long bones the disease is most common between 20 and 40, while in the case of the jaws the greatest frequency is in the second decade. In the long bone cases the youngest patient was 21, the oldest 51; in the jaw cases, 5 and 50 respectively. Bland-Sutton states: "The patients are young, rarely above 25 years of age." In this series of 49 cases, 24 only were under that age, while of the 15 long bone, &c., cases, 2 only were under 25. The sex was ascertained in 48 cases, of whom 18 were males and 30 females. In the long bone cases there were 6 males and 9 females; in the jaw cases 12 males and 21 females.

Clinical course, treatment, and after-history.—In the first place I shall consider those cases, 15 in number, where the disease occurred in other bones than the jaws. Of these, 11 have been successfully traced. The duration of the disease at the date of the first admission was ascertained in 14 cases, 2 of whom gave a history of two and three years respectively, while the rest varied from one month to 15 months. The average for the series was 10½ months. Pain was the initial symptom in 6 cases, and in 5 of these it was subsequently followed by swelling. In 6 cases also swelling was the first clinical manifestation, and was followed by pain in two instances. In 2 cases pain and swelling appeared at the same time, while *functio laesa* was present in 3 cases only. In one case the patient was admitted with a spontaneous fracture at the site of growth. A history of injury was obtained in 6 cases, including one where there had been a spontaneous fracture at the site of the tumour three years before. In no case did the tumour attain a very large size, nor did fungation occur, save in one untreated case. Egg-shell crackling was elicited in one case, but only after the bone had been exposed at operation. In Case 13, where the upper end of the radius was involved, the lesion presented the naked-eye characters of a bone cyst, but on microscopic examination a narrow layer of typical myeloid tissue was found lining the bony wall. Case 1 was originally diagnosed and treated as a chronic synovitis of the knee. Radiographic examination was undertaken in 3 cases, and materially aided in the diagnosis.

From the point of view of treatment, many interesting and several highly satisfactory results were obtained. The cases may be divided into two categories—viz., those in which conservative measures were adopted in the first instance, and those in which amputation of the affected limb was carried out as soon as the diagnosis had been made. It may be stated at once that out of 11 cases traced 9 are alive and well at the present time, in 1 the disease has recurred, and 1 only is dead. The latter was a man, aged 49, with myeloid sarcoma of the upper end of the femur, who refused operation, and in whose case the diagnosis was established by exploratory incision and removal of a small portion of the growth. The patient lived for five years thereafter, the growth ultimately fungating in several places, but there was never any clinical evidence of metastasis. Seven cases were treated by local removal of the growth and 7 by immediate amputation; of the latter, the 4 cases traced are now alive and well. They include 2 femur cases treated by amputation through the thigh, and two humerus cases, one treated by interscapulo-thoracic amputation, the other by a mid-arm amputation. Of the 7 cases treated by local removal of the growth together with a greater or smaller margin of healthy bone, 3 were cured and 3 recurred; the seventh was not traced. Of the 3 which recurred one was cured by a subsequent local removal and one by amputation; the third has recurred at the time of writing. Inasmuch as the greatest interest and importance attaches to those cases in which conservative treatment was attempted, it will be instructive to consider them a little more fully.

Perhaps the most striking result in the whole series was that obtained in Case 7 by Mr. H. Littlewood. The tumour in this instance involved the upper end of the right femur, and had led to considerable expansion and thinning of the great trochanter. An incision was made over the latter, and a scraper forced through the expanded shell of bone. Masses of soft friable growth were thus removed, and the tumour was found to extend up the neck to the head and down the shaft as far as the lesser trochanter. There was no evidence of joint involvement. All the growth was scraped away until a hard, smooth wall was obtained, the cavity being packed with gauze. When the patient was dismissed five weeks later the wound was quite healed. Now, seven years later, the patient is alive and well, with a limb which is so sound and useful that he is able to follow laborious employment in an iron foundry. In Case 13 Mr. R. L. Knaggs, five years ago, resected the upper part of the left radius for a myeloid tumour, with completely satisfactory results. In Case 12 Mr. J. F. Dobson excised a myeloid sarcoma of the lower end of the humerus, together with a margin of healthy bone. The patient is now, 18 months later, alive and in good health, but has still some limitation of movement at the elbow-joint.

The following are brief notes of the three cases in which local removal was followed by recurrence. Case 9 is an interesting example of myeloid sarcoma of the coccyx, a condition to which I have been unable to find any reference in the literature

The patient, a married woman, aged 27, was first admitted under the care of Mr. E. Ward in March, 1907, complaining of a small tense tumour over the coccyx, first noticed some five months before. On rectal examination the mass was found to be much more extensive than appeared on the surface. At operation on April 12th the tumour was found to arise from the coccyx and to be infiltrating the surrounding tissues to a marked extent. The diseased parts were freely excised, and the patient was dismissed well on May 11th. In January, 1909, nearly two years later, the patient was admitted under the care of Mr. W. Thompson with recurrence *in situ*, and an extensive removal of the growth was again undertaken. The patient is now in excellent health, and since her second operation has given birth to two healthy children. In Case 11 the disease involved the upper end of the right tibia. On Sept. 30th, 1907, a skin flap was raised and the growth scraped away until hard bone was reached all round. Four months later the patient was admitted with recurrence in the old site, and a further attempt at local removal being rapidly followed by a further recurrence, the limb was amputated above the femoral condyles. In Case 6 the disease was situated in one of the metacarpal bones, which was excised. Now, nine years later, there is evidence of local recurrence, which first manifested itself about two years ago. The patient in the meantime refuses to have further operative treatment, so that histological proof of recurrence is lacking. It may be stated here that so far as it is possible to judge from the notes, all the long bone cases were of the endosteal type, while all the jaw cases, with one possible exception, were of subperiosteal origin.

I shall now refer very briefly to the jaw cases, 35 in number, 29 of which have been successfully traced. The duration of the disease was stated in 14 instances, and varied from two months to five years, the average being 16 months. The disease was attributed to trauma in 2 cases only; in Case 20 it was alleged to have followed a tooth extraction which had taken place six months previously, while in Case 39 the patient ascribed the onset to the irritation of an artificial denture. In every case where notes are available the tumour took origin from the alveolar border of the jaw, from which it usually projected as a small plum-coloured nodule. The method of treatment varied from removal with scissors or scraping away to complete excision of a portion of the lower jaw, which was performed in one instance. In the great bulk of the cases the small portion of alveolar margin from which the tumour arose was excised with the growth. Of the 29 cases traced recurrence took place in 4, and in 3 of those a cure was effected by subsequent local removal; the remaining case is dead. The latter was a boy aged 12, the subject of some obscure bone affection, who died two years after the removal of three myeloid sarcomata from his jaws. His case, which is one of very great interest, will be published in full by Mr. Lawford Knaggs, and I need only mention here that although there was local recurrence in the jaws he never presented any clinical evidence of metastasis. Indeed, for a year before death he was profoundly asthenic and bedridden. Microscopically all three jaw tumours presented the typical characters of myeloid sarcoma, and each appeared to be quite independent of the others.

The most striking feature, to my mind, of this series of myeloid sarcomata is that out of 40 cases traced 38 are alive at the time of writing, and in one only is there now recurrence. The patients have been under observation for periods varying from 1 to 14 years, and 31 out of the 40 cases traced are of over three years' standing. Of the 2 cases dead, 1 had refused operation and lived for five years thereafter, ultimately becoming bedridden with a fungating tumour of the thigh; the other, the case just described, died really from an independent affection. There is no evidence that dissemination took place in either case. In the light of these results the ultimate prognosis in cases of myeloid sarcoma, after efficient removal of the growth, can only be regarded as highly favourable.

Malignant Giant-cell Sarcoma.

While collecting the material on which the preceding analysis is based, I took the opportunity of examining the microscopic specimens from all cases of sarcoma of bone investigated in the pathological department of the Leeds General Infirmary during the period under review. From amongst these I have collected five examples of malignant giant-cell sarcoma, to which I have added a sixth examined in private some two years ago. One of the cases has not been traced, and is consequently useless for purposes of comparison from the clinical standpoint. In the other 5 the situation of the growth was as follows: tibia, upper end, 2; femur, lower end, 2; and jaw, 1. All four lower limb cases were treated by amputation through the upper part of the thigh; the jaw case, having been diagnosed as a "myeloma," was treated by local excision. The histological characters, which contrast markedly with the myeloid series, will be referred to later.

The after-history is very striking. In every one of those 5 cases the disease proved fatal in from six months to three years from the time of operation, and in each of the four long-bone cases there is a clear history of lung metastasis. Post-mortem verification of this, however, was obtained in one instance only. None of the cases had recurrence *in situ*. In the jaw case I have been unable to obtain an accurate account of the final illness. It is to be noted that four of those cases were determined to be examples of malignant giant-cell sarcoma from the microscopic appearances only, and before the after-history had been ascertained. In the fifth I had occasion to examine only the secondary lung deposits, but by the kindness of Professor Eurich I have been able to examine also the slide of the primary growth. It is thus seen that from the clinical standpoint the contrast to the myeloid series is most marked, showing how very important it is to be able to say, from the microscopic characters, whether a given growth is a true myeloid sarcoma or not.

Histopathology.

The distinctive feature of a myeloid sarcoma is its giant cells. These vary greatly in number in different cases and in different parts of the same tumour, but, except for their apparent variability in size and in number of nuclei, they are remarkably constant in their morphological characters. The "matrix" of the tumour, on the other hand (if one may be allowed to use the term), shows great variation in different cases. It may be exceedingly fibrous or very cellular, and it may be spindle celled, round celled, or mixed celled. As a rule, the more rapidly growing myeloids have a round- or mixed-celled matrix, while the more slowly growing are spindle celled. The former also

are richly cellular, while the latter tend to be increasingly fibrous. The relative proportion of giant cells and stroma is determined chiefly by the situation of the tumour, but also bears some relation to the rate of growth. Periosteal myeloids, which arise usually if not invariably from the alveolar margin of the jaws, are characterised in most instances by an abundant spindle-celled or fibrous matrix with relatively few giant cells, while the soft, maroon-coloured, endosteal myeloids of the long bones have numerous giant cells, and a much less abundant stroma. As a rule, also, the more rapidly growing tumours contain an abundance of giant cells irrespective of their site of origin, and they are traversed by numerous thin-walled capillary blood-vessels, often of considerable size. These differences in the minute anatomy explain the different appearances found naked eye—namely, the firmness and small size of the great majority of jaw myeloids, and the softness and proneness to degenerations and hæmorrhages in the rapidly growing endosteal myeloids of the long bones. In jaw myeloids especially the essential tissue of the tumour is frequently broken up into small masses by broad bands of fibrous tissue, and these, as well as the matrix generally, are often the seat of large deposits of golden-yellow pigment, probably a derivative of effused blood. In the deeper portions of jaw myeloids small bony spicules are often present, more or less closely connected with the subjacent bone. In jaw cases also, when the growth attains a certain size, the epithelial and periosteal coverings disappear and their place is taken by a narrow granulation-tissue zone, the surface layer of which is usually necrotic.

The giant cells of myeloid sarcoma (Fig. 1 and Fig. 3, A) closely resemble the osteoblasts and osteoclasts of normal bone, but they frequently attain a very much larger size and may exhibit a whorled arrangement of the nuclei which, I believe, is characteristic. They do not resemble the myeloplaxes or mononuclear giant cells of the bone marrow, as stated by some authors. The cytoplasm is usually abundant, especially at the periphery, and presents a homogeneous ground-glass appearance. Vacuoles, mostly peripherally situated, are often present and may be of large size, when they not infrequently contain cell inclusions. The nuclei are uniformly small in size, and where not closely packed together are round or oval in shape. They stain intensely with the basic dye and usually contain a single nucleolus. After careful search I have been unable to determine the occurrence of mitotic nuclear division within the giant cells, even where mitotic figures were present in abundance in the cells of the matrix. The number of nuclei, and consequently the size of the cell, varies immensely in different cases. In most periosteal jaw myeloids the giant cells are comparatively small in size, and contain, in a given section, from 12 to 40 nuclei. In endosteal myeloids, on the other hand, they are larger on an average, and may attain a very great size. In cells of the latter class I have frequently counted upwards of 200 nuclei in a single section. In the smaller giant cells, and in many of the larger, the nuclei are uniformly distributed throughout the cytoplasm, but in certain of the latter they are grouped in the centre, and many exhibit the whorled arrangement already referred to. It is when the nuclei are thus packed tightly together that they lose their usual round or oval shape and become irregularly polygonal from mutual pressure. The peripheral ring-like distribution of nuclei so characteristic of tuberculous giant cells is practically unknown in cases of myeloid sarcoma. A point to which I wish to draw special attention is that there are no transitional forms between the giant cells and the other cellular constituents of the growth; all cells can be relegated with certainty to one class or the other.

It will be convenient now to contrast with these the histological characters of malignant giant-cell sarcoma. The stroma, as in the case of myeloid sarcoma, may be round, spindle, or mixed celled, and, as in it, the number of giant cells varies greatly in different cases and in different parts of the same growth. The cells of the stroma are much more irregular as a rule, and it is always possible to find transition forms from the smallest to the largest. A striking feature is the large size and irregular shape of many of the nuclei. Mitotic figures, many of them irregular, occur with great frequency both in the giant cells and in the cells of the matrix. As these are not infrequently cases of chondrosarcoma and osteosarcoma, cartilaginous or bony islets may be met with, in the secondary deposits as well as in the primary growth. It is the giant cells, however, and especially their nuclei, which constitute the chief distinguishing feature of this group. (Fig. 2 and Fig. 3, B, C, D, and E.) Here the nuclei are extremely irregular in size and shape, often presenting lobes and indentations, while most of them are of large size. Not infrequently nuclei of enormous size are met with, and in such cases the giant cell may be mononuclear. The number of nuclei seldom exceeds 6, and most of the cells possess from 1 to 4 only. They usually lie clumped together in the cell, so that often it is difficult to determine precisely how many are present. Mitosis within the giant cells is of common occurrence, and very frequently this is of the multipolar type, an event which may in itself account for the presence of multiple or multi-lobed nuclei in these cases. It is to be noted that mononuclear giant cells and mitosis of giant-cell nuclei, common in the malignant type, do not occur in myeloid sarcoma, while vacuolation of the cytoplasm, common in the latter, is rarely seen in the other variety.

A word must be said as to the occasional occurrence in small numbers of osteoclast-like giant cells in cases of malignant giant-cell sarcoma. These probably originate in the adjacent abnormally stimulated bone, and are of no special significance. That the giant cells of myeloid sarcoma are neoplastic there can, I think, be little doubt. Mallory [12] has recently advanced the view that they are of the nature of foreign body giant cells, in which category he places also the osteoclasts themselves. To such a view many serious objections may be brought forward. While osteoclasts may possess, in part, some of the functions of foreign body giant cells, they are at the same time essential constituents of normal bone, and it is still a moot point whether the same cells may not become, under certain conditions, bone-builders instead of bone-destroyers. I would therefore lend my support to the view expressed by Adami ‡ that the giant cells of myeloid sarcoma are to be regarded as specific constituents of the tumour and not as a mere accidental feature dependent on the situation of the growth. If they are foreign body

‡ Adami advances arguments against Mallory's contentions in a footnote to his article on Myelomas. Text-book of Pathology, vol. i., p. 734.

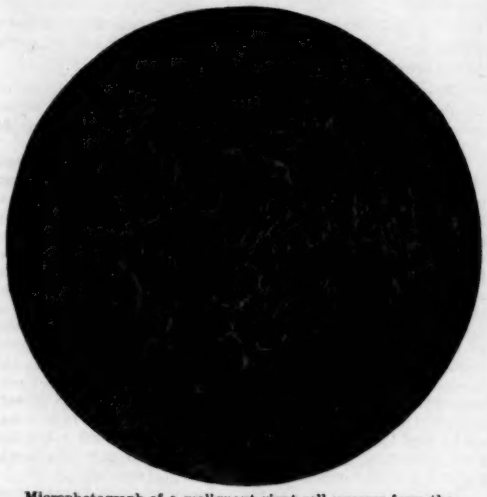
giant cells how are we to account for their presence in such large numbers in the case of myeloid sarcoma, and their fewness or actual absence in other sarcomas of bone? There is this other point, that irritation or foreign body giant cells, when

FIG. 1.

Microphotograph of a typical endosteal myeloid sarcoma. The whorled arrangement and uniform character of the giant-cell nuclei, and the vacuolation of the cytoplasm are well shown. (From Case 15. ⅛ inch objective, without ocular.)

these occur in response to known stimuli, have a definitely focal arrangement, even where they are present in very large numbers, therein differing markedly from the giant cells of myeloid sarcoma. Finally, there is the central whorled arrangement of nuclei already mentioned, an appearance which,

FIG. 2.



Microphotograph of a malignant giant-cell sarcoma from the lower end of the femur. The nuclei of the giant cells are large, irregular, and few in number. (⅛ inch objective, without ocular.)

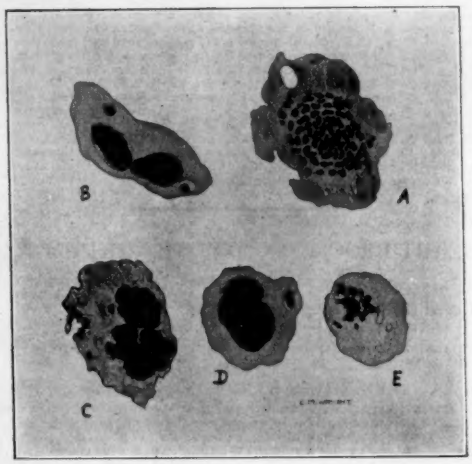
so far as I am aware, is quite unknown in the case of foreign body giant cells.

Myeloid Tumours of Tendon-sheaths.

This is a rare condition to which French writers especially have drawn attention. In these tumours, which arise chiefly from the synovial sheaths of the flexor tendons of the hand, typical myeloid giant cells are present in considerable numbers, and yet, as a rule, there is no evidence of any bony connexion. The bulk of the tumour is made up of round and spindle cells with a good deal of fibrous tissue, but in some cases at least the structure is markedly alveolar, the tumour cells are polygonal, and the whole appearance suggests endothelioma. This is the view taken by Bellamy,[18] who regards the giant cells as formed by the fusion of the smaller (endothelial) cells of the growth, and suggests the use of the term "myeloid endothelioma." My own experience is limited to a single example, but as this did not occur in a hospital patient it has been omitted from the present series.

Throughout this paper the term "myeloid sarcoma" has been employed in preference to the more modern "myeloma," for the reason that I still regard the tumour as essentially embryonic in structure, whether it be looked upon as arising

FIG. 3.



A, A typical myeloid giant cell. The nuclei are numerous, small, and regular; they are centrally situated and exhibit a whorled arrangement. B, C, D, E, Giant cells from four of the cases of malignant giant-cell sarcoma mentioned in the text. The nuclei in B, C, and D are large, irregular, and few in number; in E there is a multipolar mitotic figure. These five cells measure approximately 123μ, 116μ, 108μ, 79μ, and 69μ respectively in long diameter. (Drawing by Miss E. M. Wright.)

from bone or from bone marrow. In the more slowly growing members of the group there is certainly considerable formation of fibrous tissue, but the same is true of many other sarcomata (fibro-sarcomata). The tumours, moreover, exhibit undoubted evidence of local malignancy, as shown by their power of erosion and by their lack of definition at the periphery. I have already compared them to rodent ulcer, among epithelial growths, in respect of many of their clinical characters, and this is an analogy which might profitably be borne in mind by the surgeon.

Summary of Conclusions.

Myeloid sarcoma is locally malignant only and does not undergo dissemination. It is to be clearly distinguished, both clinically and pathologically, from malignant giant-cell sarcoma, in

which death with visceral dissemination is the rule, even after the most radical operative treatment. The histological diagnosis is based on the morphological characters of the giant cells, especially as regards their nuclei. In myeloid sarcoma the latter are numerous, uniform, small, and without mitoses; in malignant giant-cell sarcoma they are few, sometimes single, irregular, and often very large, while mitotic figures are frequent. After investigating this comparatively large series of cases, and from a study of the literature, I feel bound to advance a strong plea for the conservative treatment of myeloid sarcoma. Especially would I advocate thorough curettage as the operation of choice in the first instance in suitable cases; failing this, a local resection of the growth. Amputation should be the last resort, and only after the failure of less radical measures. An accurate histological investigation of the tumour is in all cases essential.

I wish to express my great indebtedness to the honorary surgical staff of the Leeds General Infirmary for their kind permission to make full use of their cases.

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HEART-BLOCK IN ACUTE RHEUMATIC CARDITIS.

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THE occurrence of heart-block in acute disease is now well recognised. It is known to occur in influenza, typhoid fever, pneumonia, diphtheria, rheumatic fever, and ulcerative endocarditis, but hitherto comparatively few post-mortem reports on such cases have been published.

In 1908 Jellinek and Cooper[1] reported a case of complete heart-block in acute gonorrhœal endocarditis dependent upon an acute necrosis of the interventricular septum; in another case of ulcerative endocarditis (James[2]) an ulcer of the interventricular septum immediately beneath and posterior to the membranous septum was the cause of the block; in Gerhardt's case[3] of rheumatic fever, followed quickly by enteric fever, inflammatory lesions were found in the a.-v. bundle. In 1910 one of us (A. M. K.[4]) recorded the presence of acute inflammatory cellular lesions in the a.-v. bundle in a case of acute endocarditis with partial heart-block, and a case of complete heart-block in diphtheria[5] in which acute inflammatory cellular lesions involved the a.-v. node and bundle; and in the same year Magnus Alsleben[6] reported a case of heart-block in diphtheria dependent upon a severe parenchymatous degeneration of the a.-v. bundle. A year later Butterfield[7] recorded a case of acute carditis with partial heart-block existing for 11 days before death. In this case there was a widely diffused inflammatory cellular infiltration of the "rheumatic" type in the heart, conspicuous in the region of the central fibrous body, and the inflammation reached its greatest intensity in the a.-v. node. Cellular inflammatory infiltrations, mostly lymphocytes, were also present surrounding the vessels in the bundle.

In reviewing the cases of heart-block it is necessary to note some negative cases—cases without bundle lesions—that have been recorded. In 1907 Fahr[8] recorded a case in which no lesion was found in the part of the node and bundle examined, but this did not include an examination of the main stem of the bundle at its bifurcation nor of its two principal branches. In 1910 Krumbhaar[9] published a case of block in which there was a diffuse fibrotic change in the ventricular muscle, with atrophy of the neighbouring muscle fibres. There was fibrosis in the s.-a. node, but the a.-v. bundle and its branches appeared to be quite normal with the exception of an occasional increase of connective tissue. In Price and McKenzie's case[10] there was extreme degeneration and cellular infiltration of the cardiac muscle, occurring in foci but not involving the s.-a. node or bundle. The fibres of the a.-v. node had a vacuolated appearance suggestive of fatty degeneration, although they did not think it possible to say. The patient was a child suffering from diphtheria, and the heart-block was associated with auricular fibrillation. In Hume's case[11] the heart-block was also associated with auricular fibrillation, and although no lesion was found in the nodes or bundle the terminations of the branches amongst the ventricular muscle fibres appeared to be degenerated.

The two cases of heart-block which we now report occurred in the course of acute rheumatic carditis in children, and were associated with similar histological changes in the cardiac musculature, but unfortunately in only one was the junctional tissue examined microscopically.

CASE 1.—The patient, aged 16, was admitted to the Sheffield Royal Hospital on August 12th, 1913, under the care of Dr. Arthur J. Hall (to whom our thanks are due for permission to report this case).

Present illness.—About seven or eight weeks before admission the patient had had what was thought to be an ordinary cold, accompanied by swelling and pain in the right side of the face. For the next two or three weeks she was ailing slightly, the cold coming and going. Five weeks before admission pains had commenced in the limbs and a rash had appeared, consisting of bright red patches covering most of the limbs and trunk. The rash rapidly faded on the following day, but the pains continued, being at first mainly in the legs and subsequently in the arms, and tending to wander from place to place. They varied in intensity from time to time, reaching their maximum about two weeks after the commencement, when they were very severe; during the last two weeks they had largely subsided. Dyspnœa and other symptoms of heart failure had set in and had become progressively worse during the last four weeks before admission, and for the last two weeks there had been some cough and bronchial trouble.

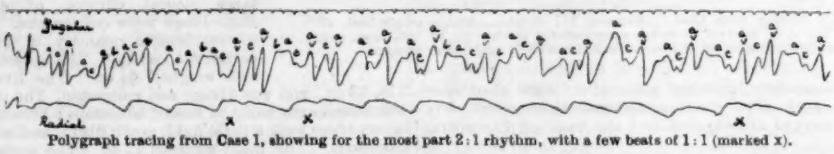
Previous history.—Up to the commencement of this illness the patient had been in good health with the exception of rather frequent colds. She had never suffered from rheumatism, and her heart was thought to be sound. One year previously she had been quite prostrate after an injection of cocaine for a dental extraction, but she was not examined by a medical man on this occasion.

Family history.—The patient's father had suffered from rheumatic fever at the age of 33, but this had not been followed by any heart trouble. Her elder sister had also had

severe rheumatism when 16 years old, but had escaped without involvement of the heart.

On admission the patient appeared very pale and ill. There was very considerable dyspnœa and orthopnœa, but only very slight cyanosis. The pulse was irregular, the irregularity appearing to be due to a mixture of a fast rate of about 126 beats per minute and a slow one of about 63. The apex beat was felt in the fifth intercostal space 5 inches to the left of the mid-sternal line. The cardiac dulness extended 2 inches to the right of the mid-sternal line, and on the left was lost in the dulness present at the base of the left lung. A soft blowing murmur was heard at the apex and outwards as far as the middle of the axilla. The sounds over the rest of the heart were faint, and there was but little relative accentuation of the second sound at the pulmonary area. There was no pericardial friction heard. The irregularity of the heart corresponded exactly to that of the pulse. There was some dulness at the bases of both lungs with numerous râles and rhonchi. On the left side these signs were more marked and were accompanied by bronchial breathing. The liver was not felt to be enlarged, and there was no ascites or œdema of the lower limbs. The temperature was 101° F., and the respirations were 48 per minute.

FIG. 1.



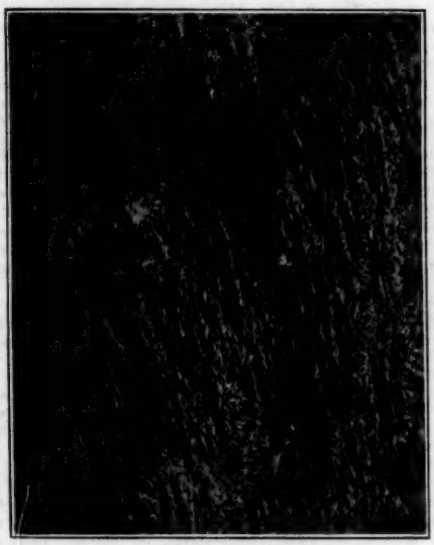
Polygraph tracing from Case 1, showing for the most part 2:1 rhythm, with a few beats of 1:1 (marked x).

Course of disease.—During the next two weeks the patient gradually became more comfortable, and was able to lie a little lower in the bed. The temperature gradually fell, and between August 18th and 26th did not rise above 99·4°. The respirations became rather less frequent, being more usually below than above 40 per minute. The physical signs in the chest remained almost *in statu quo*, except that the dulness at the base of the right lung diminished. The irregularity of the heart persisted, on some days the quick rate being more in evidence, and on others the slow, but without any definite progression towards a greater or less degree of block. On August 26th the temperature rose to 100°, and for the next three days the patient was not quite so well, the dulness and bronchial breathing at the base of the left lung increasing and the respirations becoming a little more frequent. Towards the evening of August 30th she became much worse, and from then to her death, on Sept. 1st, the dyspnœa was very severe, and she became gradually unconscious. The temperature at this time varied between 101° and normal. The heart irregularity remained as before.

Polygraph tracings.—Although not easy to obtain owing to the severe dyspnœa, these tracings showed clearly enough a condition of partial heart-block, the ventricle sometimes responding to every auricular impulse with a prolonged a.-c. interval, but more usually responding only to every second auricular impulse. (Fig. 1.)

Post-mortem appearances (A. M. K.).—Permission was obtained to make a post-mortem examination of the heart only. There was a diffuse fibrinous pericarditis all over the heart, both visceral and parietal layers of pericardium showing a typical "bread-and-butter" appearance. The two layers of the pericardium also appeared chronically thickened from fibrosis. Over a considerable proportion of the heart's surface the two layers were adherent. There were small endocarditic vegetations along the lines of contact of the mitral valve, and the basal portions of its cusps showed chronic thickening, but there was no gross narrowing of the valvular orifice. Similar vegetations were present on the aortic cusps, and there was some hypertrophy of the right ventricle, but nothing else of note visible to the naked eye. A block of tissue was removed from the cardiac septum, which contained the pars membranacea septi, the adjacent portions of the auricular and ventricular muscular septa, the central fibrous body, and the attachments of the anterior cusp of the mitral valve. The block extended sufficiently far back to include the mouth of the coronary sinus, and it was cut out in such a manner that its long antero-posterior diameter was at right angles to the long axis of the heart. Such a block includes the whole of the a.-v. node and the main stem of the a.-v. bundle, with a portion of its two principal branches. It was cut in serial section from above downwards in the horizontal plane, and a series at intervals of five were mounted and stained with hæmalum and van Gieson's stain. Examination of the sections showed excessive fibrosis spreading from the base of the mitral valve inwards and downwards to the membranous septum, and causing distinct thickening around the a.-v. bundle. In a similar way the central fibrous body was considerably thickened, and the fibrosis extended across to the base of the tricuspid valve, but not on to the valve segments. This fibrosis was infiltrated with inflammatory cells, polymorphonuclear leucocytes and round cells to a marked extent, the infiltration being most intense in its deeper parts and extending upwards into the mitral cusp. In the fibrosis below the tricuspid valve and in the neighbourhood, in addition to the above-named inflammatory cells, there were numerous "giant cells" of the so-called "rheumatic" type. In the a.-v. bundle there was extreme swelling of all the connective tissue between the bundle fibres. The swelling was caused by inflammatory œdema, and the tissue showed well-marked infiltration with inflammatory cells, both polymorphonuclear leucocytes in abundance and round cells. Focal collections of inflammatory cells were also present in the bundle, and its margins were infiltrated with similar cells in great numbers. Similar inflammatory cellular foci were present in the node, and the connective tissue between the nodal fibres exhibited the same kind of œdematous swelling. The fibrous tissue around the arterioles in the node appeared rather excessive in amount and was also swollen. The inflammatory infiltration and swelling of the interstitial tissue were most marked in the main stem of the bundle. (Fig. 2.) In the cardiac

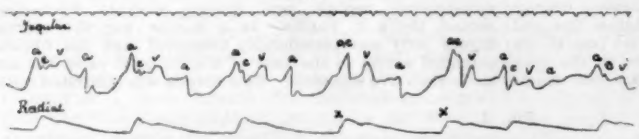
FIG. 2.



From a photomicrograph of main stem of a.-v. bundle, × 90, showing the "bundle" fibres widely separated by the extremely swollen, œdematous interstitial connective tissue, which is abundantly infiltrated with polymorphonuclear leucocytes.

tissue generally many of the arterioles showed periarterial fibrosis, the fibrous tissue being swollen, arranged in whorls, and showing slight infiltration with inflammatory cells. Inflammatory nodules consisting chiefly of round cells and "giant cells" in small areas of swollen interstitial connective tissue were also present, although they were seen but rarely.

FIG. 3.



Polygraph tracing from Case 2, showing 2:1 rhythm, with a single beat of 1:1. The a.-c. interval becomes progressively shorter up to this beat, and it is questionable whether the beats marked x are not ventricular escapes.

Acute inflammatory cellular infiltration was also seen spreading along in the subendocardial tissue, but only becoming marked as it approached the base of the mitral valve.

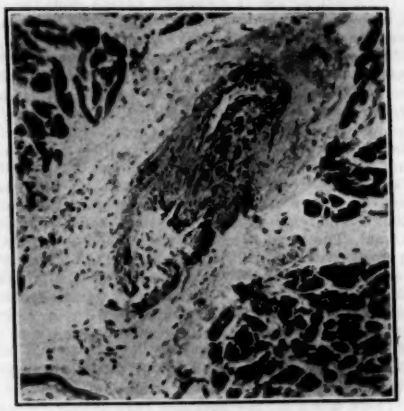
The acute inflammatory condition present in the a.-v. node and bundle in this case, and which seemed sufficient to account for the heart-block, is exactly comparable to the lesions present in the case of heart-block in diphtheria which has been previously published by one of us (A. M. K.[5]). In this latter case acute inflammatory lesions, cellular infiltrations and swelling of the interstitial tissue, involved the a.-v. node and bundle and were associated with a complete block of at least three days' duration. The type of cellular reaction also corresponds to that in Butterfield's case of partial block already quoted.[7]

CASE 2.—This patient first came under the care of one of us (A. E. N.) in September, 1909, when he was 8 years old. The history obtained was to the effect that he had been quite well up to the beginning of that year, with the exception of two attacks of pneumonia some years previously. From April to July, 1909, he had been an in-patient at King's College Hospital, under the care of Professor G. F. Still, with St. Vitus's dance and heart disease. Since then he had been in fair health and had not suffered from shortness of breath. On examination he appeared to be fairly well nourished and of good colour, and there was no dyspnœa after the ordinary exertions of walking and undressing. There was no œdema or ascites. Examination of the heart showed the apex beat in the fifth space, 5 inches from the mid-sternal line. There was a well-marked heave over the apex and also over the præcordium nearer to the sternum. The cardiac dulness extended from 1½ inches to the right to 5¾ inches to the left of the mid-sternal line. On auscultation there was a loud systolic bruit heard at the aortic base and conducted up to the neck; at the third and fourth left interspaces close to the sternum a systolic and a faint whiffing diastolic bruit were heard; at the apex there was a long blowing systolic murmur conducted outwards and round to the back and a short rumbling diastolic. Nothing abnormal was detected in the lungs. The patient attended the hospital on and off at irregular intervals as an out-patient up to the time of his admission to the wards on Dec. 27th, 1912, remaining in fair health with the exception of an occasional cough and one brief attack of mild rheumatism in March, 1910. A few days before admission he had begun to vomit and felt ill.

On admission the patient looked pale and seemed rather ill. There was some ascites and œdema of the lower limbs. The liver was felt 1 inch below the costal margin in the right nipple line. There was some dulness at the bases of both lungs, more marked on the right side, and numerous crepitations were heard. The breathing was not much distressed, but the patient was unable to lie flat; the respirations were 32 per minute and the temperature was 100·2° F. Examination of the heart showed, in addition to what is noted above, some signs of an increase of the hypertrophy and the presence of pericardial friction in the third and fourth interspaces on the left. The heart-rate was 92 per minute, and the rhythm was perfectly regular. For the next two days the pulse remained regular at a rate between 80 and 90 per minute, and then suddenly fell to about 50 per minute and became markedly irregular. Polygraph tracings showed that this irregularity was due to a mixture of 2:1 and 1:1 rhythms complicated occasionally by the presence of premature beats. (Fig. 3.)

Post-mortem examination showed the left pleural cavity to be wholly obliterated by adhesions which could just be broken down, and the right similarly affected except at the base where there was a large pleural effusion of clear fluid. Both lungs were œdematous. There was a considerable quantity of fluid in the peritoneal cavity. The spleen was firm and weighed 4½ oz. The liver weighed 2 lb. 13 oz., and was fibrous and congested. The pericardium was bound externally by recent adhesions; between the two layers there were a little fluid, much fibrin, and a few recent adhesions. The heart weighed 17 oz. The walls of all the cavities were hypertrophied, but more especially that of the left ventricle, measuring on an average about 2½ cm. in thickness. The ring of the mitral valve was thickened, rigid, and somewhat contracted; the valve segments were also thickened and contracted. The aortic valves, too, were markedly thickened. No recent vegetations were apparent. Blocks of tissue from the right and left ventricles and the interventricular septum were cut. They showed more or less wide separation of the muscular fibres by swollen interstitial tissue containing numerous small round cells. Around and near the arterioles there were, especially in the left ventricle, numerous so-called "rheumatic nodules" consisting of round cells and giant cells in swollen interstitial tissue. (Fig. 4.) In places there was marked

FIG. 4.



From a photomicrograph of wall of left ventricle, showing a small artery with a "nodule" in its wall.

degeneration of the arteriole wall, which appeared of a structureless homogeneous nature.

We regret that we are unable to give an account of the condition of the a.-v. node and bundle, and to this extent the report is incomplete. No microscopical examination of the junctional tissue was made at the time and the specimen was not kept. We include the case in this paper because the inflammatory changes in the cardiac musculature showed similar characteristics to those in the first case—"rheumatic" type—and it seems possible that similar changes may have been present in the

node and bundle, but to what extent we are unable to say.

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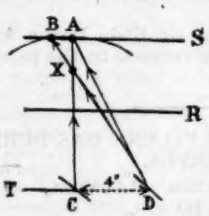
ON THE LOCALISATION OF BULLETS AND SHRAPNEL.

BY WALKER OVEREND, M.A., M.D. OXON.,

HIEF ASSISTANT IN THE X RAY DEPARTMENT AT ST. BARTHOLOMEW'S HOSPITAL, AND HONORARY RADIOLOGIST TO THE EAST SUSSEX HOSPITAL, HASTINGS.

AT the present time, when it is the frequent duty of every radiologist to locate the position of bullets and fragments of shrapnel-casing in the chest, pelvis, in the muscles of the back, shoulders, and other regions, the necessity of reliable and expeditious methods is obvious.

The methods here described depend on the well-known fact of the displacement of the shadow when the target or anticathode is moved out of the direct line. In the figure X is a foreign body situated, for example, in the muscles of the back, the patient lying face downwards. The diaphragm, rectangular by preference, being contracted to a mere slit, the tube is moved until the shadow lies exactly central. The point of a pencil is placed on the centre of the shadow if the object is irregular in shape; if a pointed bullet either on the apex or opposite end. The light is then turned up and the spot is marked on the glass of the screen with a small dot of ink or with a solid ink pencil. The diaphragm is now opened and the target (T) moved to D, 4 inches to the right. The shadow is displaced to the point B; its position is again marked on the screen. As the distance of the target below the edge of the table is known, or may be ascertained once for all, it now only remains to measure the height of the screen (S) above the couch (R), when the distance of the anticathode from the screen or skin is found.



The data we have now obtained are the amount of displacement of the shadow corresponding to a 4-in. movement of the target and the distance of the shadow from the target. To facilitate matters a 4-in. steel rule may be purchased in which the inches are divided into 32 parts. For immediate calculation a table may be consulted consisting of several columns. In the first column the depth of the body in inches is given, in the remainder the displacements of the shadow in 1/32nds of an inch, for 18, 20, up to 30 inches distance of the screen from the anode. The distance between the shadows is measured on the 4-in. scale in 1/32nds of an inch, the column corresponding to the height of the screen is taken with the degree of displacement. This line is followed to the left to the first column and the depth of the object is ascertained.

Before commencing the localisation it is important to see that the tube itself is properly centred. This may be done by placing a circular metallic reel—such as is generally used for surgical plaster—on the couch and the fluorescent screen over it. The position of the tube is now altered in its box until the shadow of the reel corresponds to the reel itself. Before the patient leaves the couch it is necessary to indicate on the skin as a landmark the position of the shadow cast by the direct ray. This may be done by moving a long thin pointed metallic rod beneath the screen until the shadow of the point corresponds with that of the foreign body. Indelible pencil or solid silver nitrate may be used. The whole procedure of localisation need not occupy more than ten minutes.

If the shadow is too small, indefinite, or if very accurate estimation is required two radiograms may be taken on the same plate with the anode in the two positions already described. The measurement is then made between identical points of the shadows in 1/32nds of an inch. The brighter and more definite shadow is that cast by the direct ray. This method may be employed for bullets within the chest, abdomen, large joints, and skull. If the shadow moves with respiration, the *double* radiogram must obviously be taken in the same phase each time.

I have devised a simple localiser which may be employed when the distance between the shadows has been ascertained. It is clamped to the side of the couch directly the two shadows have been marked, and consists of a vertical rod, which carries in a sleeve a horizontal aluminium bar. At the extremity of the bar a *pellet of shot* is fixed. The bar is movable up and down on the vertical rod, also backwards and forwards in its sleeve. Fastened to the rod is an inch-scale and an indicator which at first is situated at zero. Before the patient leaves, the horizontal bar is projected over the screen, and lowered so as to touch it; then it is withdrawn and fixed. This position denotes the height of the screen. After the patient has gone the screen is again placed at the same level and the pellet of shot is brought exactly beneath one of the shadows. The tube and diaphragm are adjusted until the central ray strikes this shadow; the diaphragm is opened, and the tube moved four inches in a direction opposite to the second shadow. The shadow of the shot does not change its position, since it is situated exactly at the screen (see figure). The scale is now fixed, and the shot with the bar slowly depressed. Its shadow moves towards the second; when it is at the same level the bar is clamped and the depth is read on the scale.

In the upper arm, thigh, and calf it is not always easy to find the bullet even after crosses have been made at right angles to each other. The safest plan, perhaps, is to place the limb, with the assistance of the surgeon, in the *exact* position in which the operation will be performed, and localise the depth in the manner mentioned above, either by marking the two shadows on the screen or by taking a *double* radiogram. If the aperture of entry is near the shadow a tiny piece of adhesive lead foil as an additional landmark may be placed over it before the single or double radiogram is taken.

The localiser, calculating tables, and rule may be obtained from Mr. Leslie Miller, 66, Hatton-garden, London, E.C.

St. Leonards-on-Sea.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF RUPTURED UTERUS WITH INTACT MEMBRANES.

BY LEWIS GRAHAM, M.S. LOND., F.R.C.S. ENG.,
HONORARY SURGEON, BIRMINGHAM AND MIDLAND HOSPITAL FOR WOMEN; HONORARY OBSTETRIC REGISTRAR, MATERNITY HOSPITAL, BIRMINGHAM.

THE following rare case will, I think, prove of interest to the readers of THE LANCET.

The patient, aged 34 years and in her fourteenth pregnancy at full term, was admitted to the Birmingham Maternity Hospital at 3 A.M. on August 14th, 1914. Her previous labours had been normal. She had been in an infirmary during the last week of June this year on account of abdominal pain and vomiting, and while there was given an anæsthetic for thorough abdominal examination, but as nothing was found she left.

When admitted to the Maternity Hospital the patient stated that she had "had a flooding which went through the bed." On examination nothing abnormal was found except slight cystitis. The os admitted a finger. The head presented and the fœtus was alive. At 9 A.M. she complained of "stomach ache, not like labour pains." At 12.30 she had the same pain and the os was now the size of a five-shilling piece. At 3.30 she complained of a "click in the right side." She also began to lose more than normal. Her appearance changed and she looked grey and pinched. The pulse was 88. The fœtal heart was not heard. The abdomen looked more square and full; it was quite soft and slightly tender. The membranes had not ruptured and the fœtal head could not be felt. At 5 P.M. I saw the patient. She was having no pains, but her condition was so grave that I ruptured the membranes, seized a foot, and extracted a dead but otherwise normal child with ease. Immediately on delivery the woman's condition, bad before, became much worse. I then examined again and felt a long anterior rupture of the uterus with the placenta lying in front. The latter I withdrew. The woman now appeared to me to be dying. She had no pulse at the wrist and her respirations were only the faintest occasional sighs. I put into the vagina a large plug of iodoform gauze and expected her to expire in a few minutes.

While I was getting ready to return home the house surgeon, Dr. Elsie Impey, begged hard that I should do something more for the woman, and with great courage volunteered to give an anæsthetic. It seemed that the patient would die in any case, but that if we operated we should feel that nothing had been left undone to save her. Without the slightest hope of success, under a little open ether, I performed a subtotal hysterectomy. The uterus was severed below the level of the rent, which extended vertically, in front, from the fundus to about the position of the internal os. The gauze was pushed out through the vagina and another piece introduced from above, vessels were ligated and all stumps peritonealised with a continuous suture. All blood in the abdominal cavity was extracted and saline was left in the abdomen. Throughout the operation, which took about 20 minutes, the best one can say of the patient's condition was that she did not die. When the strain stitches were put into the abdominal wall she appeared to have expired, so no intervening skin stitches were put in, and she was just covered with dressing and a binder. Luckily the patient was not dead, and at 10 P.M. her condition was much improved. She was conscious, and had a pulse of 150. For five days she made perfect progress, and one anticipated recovery. On August 19th she had diarrhœa, which was complicated next day by vomiting. Despite all treatment these continued, and she went downhill and died at 1 A.M. on August 22nd.

At the post-mortem examination the pathologist, Dr. Laurence Ball, could find nothing to account for death. The incision was healing cleanly and there was simply a clean suture line of peritoneum in the pelvis. On microscopic examination of the uterus nothing abnormal was found in any part of the wall examined.

Two things in the case impressed me greatly. 1. The force of the uterine contractions were able to make a long complete rupture of the uterus and yet not able to rupture the membranes, though the os was considerably dilated and the membranes of normal toughness. 2. The patient could stand a hysterectomy in so profound a condition of collapse as to resemble imminent death and yet recover virtually from it.

My best thanks are due to Dr. Elsie Impey for her encouragement and perseverance in the treatment of the case.

Birmingham.

NOTE ON A CASE OF ACETYLENE GAS BURN OF THE CORNEA.

BY H. HAWARD BYWATER, M.D. VICT., F.R.C.S. EDIN., D.CH.O.,
HONORARY ASSISTANT SURGEON, EYE AND EAR INFIRMARY, LIVERPOOL.

As I have seen no record of a similar case, I send the following notes for publication.

A motor-lorry driver consulted me early one morning and stated that on the preceding night he was examining an acetylene generator to see if he had put in sufficient water. In order to see the level of the water he struck a wooden match and held it two inches away from the aperture, his right eye being nearer the aperture than the left. He at once heard a report and saw a blue flame, but thought he had escaped any injury. As the right eye became slightly painful the next morning he came to see me.

On examination the lashes of both lids and the hair over the brows were burnt, especially on the right side. On the right cornea there was a central superficial oval-shaped burn; this was longer horizontally and stained brightly with fluorescin. The left cornea was unaffected. The vision of the right eye was 6/18 and that of the left eye 6/6. Four days afterwards the vision in the right eye was 6/9 (3 letters) and seven days after was 6/6.

Liverpool.

LIVERPOOL SCHOOL OF TROPICAL MEDICINE.—Professor Warrington Yorke, M.D., of the University of Liverpool, and Dr. B. Blacklock, director of the Runcorn Research Laboratory, have left Liverpool for Sierra Leone upon a medical research expedition organised by the Liverpool School of Tropical Medicine. The principal concern of this expedition will be an investigation of the biting insects associated with tropical diseases in Sierra Leone.

Medical Societies.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Exhibition of Clinical Cases.—Prolapse of the Spleen.

A MEETING of this section was held on Nov. 13th, Mr. J. CHARTERS SYMONDS, the President, being in the chair.

Mr. ALAN H. TODD showed a case of Probable Injury of the Crucial Ligaments. The patient, a man, aged 30 years, had injured his knee during a football match when he was aged 15; he did not remember quite what happened, but he had to be carried off the field. Nothing was very obviously wrong with the joint at the time and the school doctor sent him into school next day. After walking on it, however, it became very swollen and painful and he had to remain in bed for ten days. No splint was used. The inflammation subsided. For some years after this the joint felt weak. Sometimes it would become swollen and distended, and then walking would be painful. Occasionally it would "go out," in which case there would be severe pain. Sometimes it would reduce with an audible click. The joint, moreover, sometimes became locked, but he had never discovered a loose body in it. He had always been able to reduce the knee by slow forced extension, but had noticed that if he wore an elastic knee-cap this prevented him from "getting the joint back" unless he first removed the cap. At one time, soon after he left school, he used to get attacks of synovitis every few weeks, but lately these had been much less frequent. In the intervals between the attacks he had been able to lead an active, athletic life, playing a good game of golf or tennis daily, though he had always had to avoid turning round too suddenly. Eleven years ago, when out shooting, he jumped on some muddy ground and twisted the knee badly. It was very painful, and a medical man put it in plaster, fully extended, for three weeks. After this he wore a patella-clamp for a while, but as it failed to prevent the joint "going out" he discarded it. A slight genu varum slowly developed after the original accident, but lately it had obviously increased in amount. The patient walked with a slight limp, but there was no obvious laxity of the joint: apparently he had unconsciously acquired the habit of keeping the thigh muscles well braced up when walking. When sitting he could make the leg slide forwards on the femoral condyles at will. There were slight limitation of extension and flexion and some lateral mobility of the joint. Although there was no evidence of free fluid within the joint, or of hypertrophy of the subsynovial tissue, the circumference of the right knee was ¾ in. greater than that of the left. This seemed to be mainly due to several large osteophytes which had formed around the internal tuberosity of the tibia and the internal condyle of the femur at their margins. They were well seen in skiagrams.

Dr. W. ESSEX WYNTER and Sir JOHN BLAND-SUTTON showed a case of Acholuric Jaundice in which splenectomy had been performed. The patient, a young man, had suffered from jaundice and anæmia all his life, with exacerbations at frequent intervals. His mother, maternal grandfather, an aunt and an uncle on the mother's side were similarly affected. The yellowness of the skin apparently increased during the day, being more marked in the evening than in the morning. He had been worse during the past two years, losing strength and 2½ st. in weight. Physical examination disclosed no abnormality of the thoracic or abdominal viscera, except slight increase in the dulness over the spleen, which could just be felt on deep inspiration. The urine was clear, of a deep red-brown, and had a specific gravity of 1025. There were no abnormal constituents, and both Gerhardt's and the zinc chloride tests for pathological urobilin were negative. Hæmolysis occurred in 0·45 per cent. saline solution, which was about normal. The white cells (5200) consisted of lymphocytes, 39·4 per cent.; polymorphonuclears, 57·5 per cent.; and eosinophiles, 2·5 per cent. The temperature was 99° to 100° F. before operation. The spleen was removed in July, 1914, several ligatures being applied close to the hilum, but the main artery was left unmolested. There were no complications, and the temperature subsequently became normal in the course of ten days. Wassermann's reaction was reported positive before operation and negative after. The reaction was considered doubtful 14 weeks later. The patient left hospital after about a month. The red cells were then 1,880,000 and the white cells 13,000. The resistance of the red cells was greater than normal. A white cell count 11 days after the operation showed lymphocytes, 24 per cent.; hyaline cells, 2 per cent.; polymorphonuclears, 73 per cent.; and eosinophiles, 1 per cent. After about four months the patient had put on 1½ st. and had gained strength and been free from attacks of jaundice. Blood count: Hæmoglobin, 80 per cent.; red corpuscles, 3,700,000 per cubic millimetre; leucocytes, 18,000 per cubic millimetre; neutrophile polymorphonuclears, 51 per cent.; lymphocytes, 33 per cent.; transitional and hyaline cells, 11 per cent.; eosinophile polymorphonuclears, 4 per cent.; mast cells, 1 per cent. A few normoblasts were present, and a considerable number of red corpuscles showed nuclear fragments (Howell-Jolly bodies). Resistance of red corpuscles to hypotonic NaCl solution: a faint trace of lysis, 0·45 per cent. NaCl; marked lysis, 0·3 per cent. NaCl. Two presumably normal bloods tested at the same time showed a trace of lysis with 0·45 per cent. NaCl and almost complete lysis with 0·4 per cent.; thus the patient's red cells were of more than average resistance. The Wassermann reaction was suspicious, but could not be called positive.

Dr. ESSEX WYNTER and Sir JOHN BLAND-SUTTON also showed a case of Splenic Anæmia after Splenectomy. The patient, a boy aged 13 years, had been ailing for six weeks suffering from lassitude and some enlarged glands. He was sent for treatment by the school doctor, and was thought at first to have Hodgkin's disease, but improved under treatment as an out-patient. On admission in July, 1914, the boy was seen to be anæmic and thin, but made no definite complaint of pain or discomfort. The thoracic and abdominal viscera appeared normal apart from the spleen, which was much enlarged and extended 4½ inches below the left costal margin and inwards to the middle line. Small, firm glands could be detected in the neck, axillæ, and groins. The thyroid was enlarged, especially the isthmus. Blood count: Red cells, 4,200,000; white cells, 2600; hæmoglobin, 60 per cent. A differential count showed no disturbance of the ordinary proportion in white cells. Temperature 99° F. Urine normal. Splenectomy was performed in July. There were firm adhesions, separation of which involved considerable bleeding and some injury to the diaphragm. A gauze drain was inserted, but the wound healed readily, and stitches were removed on the eleventh day. The spleen was large and firm. For ten days after operation the temperature rose to 102° and 103°, and thereafter gradually subsided. Movement of the diaphragm was arrested, especially on the left side, and there was collapse of the lower lobes of the lungs with bronchitis. This gradually cleared and the patient was convalescent after five weeks. Then the blood count was as follows: Red cells, 3,650,000; white, 21,000; polymorphonuclears, 48·5 per cent.; lymphocytes, 21 per cent.; eosinophiles, 5 per cent.; and transitional, 25·5 per cent. In November another blood count showed: Red cells, 4,800,000; white cells, 8000; hæmoglobin, 62 per cent.

Dr. G. HELY-HUTCHINSON ALMOND showed a case of Myositis Ossificans (juvenile progressive type). The patient, a girl, aged 7 years, was healthy as a baby. Fifteen months ago, when aged 5½, her right hip began to get stiff, and was followed by the left; the stiffness was intermittent at first, but they had gradually become more fixed. She could only walk about 100 yards, and tilted her pelvis up on both sides with each step. She was thin and her muscles were badly developed. There was a slight list of the spine to the left with corresponding curves and raising of the right shoulder. A small patch of ossification could be felt close to the insertion of the biceps of the left arm, and a patch of hardness near the origin of the biceps of the right. The ilio-tibial band on the left side was ossified from its origin to its insertion. The hamstrings of the left thigh were ossified, a skiagram giving the appearance of a calcified shell enclosing the muscles. There was a lozenge-shaped patch of hardness in the outer belly of the left gastrocnemius. No definite patches of hardness or ossification could be made out in the muscles of the spine or trunk.

Mr. W. J. MIDELTON showed a case of Dermatitis Herpetiformis with Tuberculous Glands in the Neck. The

patient was a girl aged 9 years. She had been well up to the age of 3, but then developed scarlet fever. An eruption occurred after the original rash had died away and was diagnosed as dermatitis herpetiformis. The dermatitis continued. She had been free from the dermatitis from the beginning of August to the end of September, 1911; then it recurred and persisted. Counter-irritation had been commenced at the end of February, 1912. At that time the pustules, blebs, and scabs were well marked, chiefly on the inner aspect of the upper third of the thighs and spreading on to the abdomen. Within three weeks she became well. Occasional slight relapses of short duration had occurred since. About five years ago some tuberculous glands in the neck were operated on and sinuses persisted for over two years. These eventually healed well, but one scar remained bluish-red and had whitish specks in it suggesting lupus vulgaris. In May, 1913, she had a wound on the right wrist which became septic, but soon healed under treatment. In August, 1913, one or two glands in the neck enlarged and one small abscess formed. This was incised, and complete healing took place in a few months. Other glands became inflamed, but no definite abscess occurred. This fact was, in his opinion, significant as showing greatly increased resistance. No sign of the dermatitis had appeared for over 18 months.

Mr. MIDELTON also showed a case of Dermatitis Herpetiformis and Chronic Bronchial Catarrh in a boy aged 9 years. He had been treated by means of continuous counter-irritation commenced in August, 1912, and carried out once a week ever since. The treatment seemed to check the eruption and the boy's general health had much improved.

Mr. MIDELTON also showed a case of Severe Neuritis following Sepsis in a man aged 42 years. He also had been treated by continuous counter-irritation by multiple puncture and irritants. Applications had been made once a week on various parts of the trunk and arms. Recovery had followed.

Mr. MIDELTON also showed a case of Polyarthritis and Severe Neuritis in a man aged 48 years. One year ago pains occurred in arms and headaches returned; pains also in legs, at times severe, lately very severe indeed. Joints of fingers swelled, also knee-joints to some extent. Some slight muscular wasting, especially interossei. At times almost helpless. No drugs were of use in relieving the pain. Knee-jerks absent. Treated with benefit by means of blisters and savin ointment. A blister, 4 in. by 4 in., was applied over the upper dorsal vertebræ and left on 12 hours. This was then removed and a raw surface left. Savin ointment was then applied on lint over the raw place and left on for 12 hours. By repeating this dressing regularly every 12 hours a free, purulent discharge was maintained for 12 days. Zinc ointment was then applied and the raw surface healed rapidly and soundly within three days.

Dr. H. BATTY SHAW showed a case of Hemihypertrophy in an otherwise healthy girl aged 11 months.

Mr. W. G. SPENCER read a short paper on a case of Retroperitoneal Prolapse of the Spleen into the Left Loin.

MEDICAL SOCIETY OF LONDON.

Continued Discussion on Surgical Experiences of the Present War.[1]

A MEETING of this society was held on Nov. 23rd, Sir JOHN BLAND-SUTTON, the President, being in the chair.

Mr. D'ARCY POWER said that the wounds which had come under his care were the result either of the conical bullet, of the round bullet, of pieces of shrapnel cases, or of the explosion of large shells. He had seen no case of injury due to bayonet, lance, or sword. He instanced two cases as showing the force of impact. An officer was wounded by a large shell which burst within ten yards. The skiagram showed the presence of foreign bodies deep in the erector spinæ. Subsequent examination proved that two of these substances were sovereigns which had been driven out of a money belt he was wearing straight down on to the transverse process of the first lumbar vertebra, which was smashed to pieces. The coins themselves were twisted and concave; one had upon it the impression of the milled edge and part of the obverse of that which lay above it. In the other case part of the patient's diary had been driven into his thigh and for many days afterwards he shed pieces of its leaves. The most interesting, as well as the most difficult cases, were those in which there had been injuries to the nerves and the nervous system. It was necessary to decide whether the subsequent disturbance was due to damage done by the bullet in its passage or whether it was caused by the bullet as it lay *in situ*. In many cases this could only be determined by the careful examination of a skilled neurologist acting in association with a first-rate X-ray photographer. In such cases the surgeon's action must be governed by their reports. If the damage was done by the bullet in transit its removal would be of no benefit, whilst if the projectile itself was causing irritation it must be removed. He held, therefore, that each case must be considered on its merits, and that it was unnecessary for surgeons to remove every bullet or piece of shell merely because it showed up clearly on a skiagram. The most interesting injuries to the nervous system and nerves were those to which the non-committal name of "concussion" must be given for the present. They had to be distinguished from laceration, hæmorrhage, compression, and other tangible conditions by the fact that no gross lesion was presented by examination during life. They occurred in the peripheral nerves as well as in the spinal cord. Experience showed that the X-ray photographs as they were usually presented were not infallible guides either to the position or to the depth of a foreign body. It might be necessary to undertake an extensive exploration before a bullet was discovered, or it might even be missed altogether. Sloughing rather than suppuration was a feature in most of the wounds, and it was interesting to observe that in many instances where a bullet had passed completely through a limb it was only the inlet and outlet which remained as wounds, the intermediate track having healed. The cause of infection seems to have acted after the injury and not at the time. In consequence of the sloughing secondary hæmorrhage needing ligature of the main artery in its continuity was tolerably frequent. When wounds which had healed became painful it was necessary to reopen them, and in every case the pain seemed to have been due to pieces of clothing which had been left in the tissues, at first without causing irritation. Dry dressings in most cases had had to be replaced by fomentations. Iodine had been employed extensively in the form of 1 drachm of a 2½ per cent. solution in a pint of warm water applied on absorbent cotton-wool. The iodine volatilised if the water was too hot; it was converted into an inert iodate if a starch-containing dressing was used. Much time could be saved if the gaping edges of flesh wounds were brought together by a gridiron of strapping; union by third intention, which was healing by the union of granulations, then took place just as it did in a baby whose hare-lip had failed to unite at once. Mr. Power concluded his remarks by pointing out that the surgeon needed constant help from the physician, the neurologist, the pathologist, and the radiographer if he was to obtain the best results for his patient, that he must know when to stay his hand and when to operate, and that his attitude should be rather from than towards operation. It was better to lay wounds freely open than to plug or drain them.

Mr. J. CHARTERS SYMONDS said that before speaking on the general question he wished to express his entire agreement with the broad principles laid down by Sir Watson Cheyne.[2] He (Sir W. Cheyne) had brought them back to the time when septic infection was the rule, and had shown that the same conditions still prevailed when wounds were exposed and must be met by the methods originally introduced by Lister. Those who worked in hospitals in the early "seventies" must recall with him many old experiences now recurring and agree with Sir W. Cheyne's condemnation of the gauze drain when suppuration existed, of the imperfection of much of the so-called sterilisation, and of the tendency of an operator to attribute failure to any cause but that due to his own lack of watchfulness. The address he had given was a fine confession of faith, and he (Mr. Symonds) would cordially endorse his advice to younger men to read the account of Lister's early work, accessible in those admirable volumes, in the preparation of which his two old pupils and assistants, Cheyne and Godlee, took so large a part. It was with some hesitation that he accepted the invitation to speak on this subject because of his limited experience. Yet he supposed it to be in character not unlike that of most others who had been in charge of hospitals at home.

[1] THE LANCET, Nov. 21st, 1914, p. 1200.

[2] THE LANCET, Nov. 21st, 1914, p. 1185.

Though it was not the time to formulate definite lines of treatment, much good might result by an interchange of experience, for they did not all of them treat these injuries in the same way. He proposed to confine his remarks to the question of septic wounds near the large vessels, to the management of septic comminuted fractures, and of wounds of joints already septic, for here life and limb were in peril and the surgeon's whole purpose should be concentrated upon the saving of both, leaving refinements to a later period. The wounds of large vessels—of which two interesting examples had come under his care—and of nerves, of which there were also many, and of the lung and pleura must be omitted. The head injuries he hoped someone else would deal with. A point that must have struck everyone was the septic condition of all but the simple direct bullet wound. The cases had come under care from two to ten days after the infliction of the wound, which even in 48 hours had been septic and the later ones so offensive as to be unbearable, yet the remarkable thing about these cases was the absence of toxæmia. The temperature, even in the fractures, was normal, and the pain where one of two parallel bones was broken trivial. This septic condition must be attributed to the length of time the wounded had lain out in the open, often two and three days before help could reach them, and to the urgency of clearing the field hospitals. There had been no time for full disinfection such as Sir W. Cheyne rightly desired to see, and which was hoped would now be possible, owing to the shifting of the base and the better provision of hospital accommodation. Though most of the wounds on arrival were septic, this was not from the lack of careful dressing *en route*. The Belgian contingent, for instance, had all been dressed on the ship or on the train, and he would like to pay a tribute to the admirable attention these and the other cases received in transit, involving as it must have done a great amount of work on the part of the medical officer in charge and chief of the Red Cross nurses. Why was toxæmia absent in most of these cases? Did the missile sear the tissues in its passage? Certain it was that constitutional effects differed widely from those seen in wounds of equal septicity in civil life. In the treatment of the ordinary flesh wounds he had rested content with frequent boric acid fomentations—not even employing irrigation. In some a 10 per cent. solution of argyrol had been of service. With regard to comminuted fractures by bullets or shells, he believed the best plan, again, was to be content with warm antiseptic applications. To take the first case he was called upon to handle, a drummer in the Loyal North Lancashire with a smashed humerus. The man came in on the sixth day, in great pain, foul pus escaping from the openings, the skin inflamed and sodden, and yet the temperature was not raised. He looked ill and wasted, chiefly from exhaustion, for he had undergone the terrible hardship of the long journey to St. Nazaire. A small dependent opening was made for the better drainage, and a rubber tube passed through. In doing this it was ascertained that the bone was broken into many fragments. Careful dressing once a day with gauze and wool and firm splinting led to rapid improvement. At the end of three weeks the bone had united. He left after four weeks with one sinus and a strong arm. Another man had a bullet through the tibia, splitting off a large fragment from the front, and though a direct wound this was septic and most offensive. Rapid union ensued here also under boric fomentations without any irrigation. There remained a sinus leading to bare bone which must be dealt with later. It was somewhat tempting to open up and disinfect the humerus and remove some of the fragments, and again to plate or wire the tibia. The results exemplified the truth of Sir Watson Cheyne's conclusions that it was far better to leave cases alone; strong limbs would result, though there might be a little imperfection in alignment. He had found bullet and shell wounds of the tarsus more septic and more difficult of recovery. Was this because the joints were involved, or because of the softer character of the bones? Was it wise to depart from the method of non-interference and to curette these cases, say, in the third week? He had just carried out such treatment in a tarso-metatarsal injury and in a carpus. The immediate result in the latter was an increase in the pyrexia from 101° to 104°. In neither was the result sufficiently advanced for drawing any conclusion. While it was, he thought, generally agreed that the better method of treating these wounds was to be content as a routine practice with the application of boric fomentations and gently washing with peroxide of hydrogen or some mild antiseptic, there were some instances where the question must arise as to whether more active measures should not be undertaken. To take two examples—one where a main vessel lies in the wall and another where a joint is involved. Some of the septic wounds of the thigh had caused him no little anxiety for some days. A bullet entered the outer and back part of the thigh, passed forward behind the femur, and took its exit an inch inside the line of the superficial femoral. There being great pain and no improvement in the septic condition, the wound was examined under an anæsthetic, the greatest care being taken to avoid injury to the surface. The femoral sheath must have been exposed, for the vessels stood out from the inner surface of the track as a rounded cord. Beyond avoiding all injury and rough irrigation the case was left and had done well. So great was the danger of secondary hæmorrhage that he deemed it necessary to have a tourniquet by the bedside and the attendant instructed in its use. In another a ricochet bullet carrying a sharp hook-like projection from its base tore across the line of the femoral just above the apex of Scarpa's triangle. The track, some six inches in length, discharged offensive pus. Though it was impossible to clean this wound, then some four or five days old, the recovery under boric acid fomentations took the usual time of two or three weeks. These gave rise to some anxiety, and he would raise the question whether such wounds should not be enlarged to afford better means for disinfection. One thing which seemed to him to be necessary in such cases was to remove any fragment of shell, bullet, or clothing with as little disturbance of the parts as possible, and to provide efficient drainage by means of a large rubber tube. This might involve an incision in a dependent part. The liability to secondary hæmorrhage would be increased if the patients had other injuries and were also septic. If seen within a few hours of the injury and the wall of the vessel was exposed, should the artery be ligatured when the wound was being cleaned, or should this be deferred in the expectation that if the disinfection had been effective the danger of secondary hæmorrhage had been reduced to a minimum? The wound becoming septic, should the main vessel be ligatured and divided in the wound, or was it better to combine this with proximal ligature? Or, again, was proximal ligature sufficient? To take a case in point: an officer arrived ten days after being severely wounded in three places. The left arm had been amputated in the field hospital and showed limited suppuration. The right foot was swollen and septic from a bullet wound of the tarsus, the ankle-joint, as was discovered in a few days, being involved. There was a ragged septic wound on the inner side of the knee leading deeply into the popliteal space, and the skin of the leg was also red and infected. From the popliteal wound issued most offensive pus. The man was wasted, grey, and septic, the temperature 103°, and he suffered a good deal of pain, borne with that admirable courage which all must have admired in those who had come home seriously injured. He would not enter into such great detail if a large principle were not involved and were not this an example of a considerable class, though it must be admitted that each case must in the end be treated on its own merits. Should immediate amputation have been performed through the thigh in this case? Should the popliteal space have been opened up and the condition of the parts ascertained? He improved in a general way for three days, the temperature fell and the popliteal wound became cleaner. Then fresh infection arose and the temperature reached 103° on the seventh day after admission, the seventeenth from the injury. On this day the ankle-joint was opened and pus evacuated. Ten days after admission and 21 after the injury slight hæmorrhage occurred from the popliteal wound. This being repeated next day, he opened the wound and on passing the finger gently in there came a great burst of bleeding, and it was obvious that the main vessel had been opened. A small fragment of the nickel casing of a bullet was found lying outside the vessels. The artery was with some difficulty secured above and below the wound and then it became obvious that the vein also required ligature. As he proposed, notwithstanding the slender chance of recovery, and in view of the septic condition of the leg and foot, to avoid amputation if possible, a kangaroo tendon ligature was placed on the femoral at the apex of

Scarpa's triangle as a further protection. Next day, the foot being discoloured and the leg cold, amputation was performed through the thigh. Though the condition was unfavourable in all respects, he was glad to say the patient was recovering. An examination of the popliteal space when the man was first seen would doubtless have revealed the injury to the vessel, seeing it was then 10 days old. This would in all probability have precipitated amputation, with the man less able to bear it than he was after a week's rest. Dealing alone with these wounds in a septic condition, he was disposed to think the better practice was to examine and drain, and if the artery was found to be exposed and its sheath injured to ligature the main trunk some distance above—e.g., the brachial in the case of the forearm or the femoral for popliteal injury. He did not mean to say that local ligature of the smaller vessels was not in many cases sufficient. Recently he had to lay open the calf for smart secondary hæmorrhage coming from what he took to be the peroneal artery. The bleeding point was ligatured and the wound treated successfully by the open method. There must be many such cases, and whilst amputation offered an easy and, other things being equal, a comparatively safe way out of the difficulty, it would seem reasonable, in view of improved methods, to go much further in the attempt to save a limb than formerly was justifiable. There was one other subject to which he wished to refer, more to ask for than to give information. What was the best method of immobilising and transporting cases of fracture of the femur? Of all injuries these must suffer most in transit. It might be impossible to keep them in an advanced base, and he was told that when the base was at St. Nazaire the order was that all cases should be sent home. When the wound was being cleaned, was it wise to apply a plate with a view to fixation during transit? Where the wound was large and the bone exposed, and an attempt was being made to save the limb, it seemed to him, judging from his experience of compound fractures, to be a sound practice to apply a plate. In the case of the tibia and fibula his practice at Guy's Hospital was to plate in compound fractures when it was otherwise difficult to secure good position. In bad cases the plate had to come out and was sometimes exposed throughout the whole period of its employment. It served to retain the fragments in position, while the muscles wasted and the surrounding callus formed and enabled more satisfactory dressings to be applied. In itself the plate might have done some harm, but the final result was, in the severe cases with loss of skin, better in his judgment than could have been otherwise secured. So that he would, did the opportunity occur, employ plating or wiring, preferably the former, in suitable cases. To open up any clean bullet wound except to secure a large vessel was a practice which could not be defended even by the most ardent advocate of plating fractures. For transit, so far as he was able to judge, Hodgen's wire splint, designed by this surgeon during the American Civil War for the very purpose, was still the best. The frame should be suspended as Hodgen directed from a hook at the end of the ambulance. In this connexion he fully agreed with Sir Frederic Eve that no other splint permitted the dressing of compound fractures more conveniently and with less distress to the patient. It seemed to him to possess no rival. Having stated his own suggestions, gleaned from civil experience, and thus raised a very important question, he hoped there might be someone present with first-hand knowledge who would be able to say how these severe cases were being handled. In discussing the value of antiseptics Sir Watson Cheyne had done good service in bringing them back to the merits of carbolic acid. It was good to hear that Lister's greatest exponent had not lost faith in an antiseptic with which the earliest and greatest triumphs were secured. While he had himself relied upon carbolic and mercury in the immediate treatment of compound fractures and suppurating joints, he was bound to admit that the 2 per cent. solution of iodine in rectified spirit had given remarkable results in the treatment of large lacerated wounds with or without involvement of bones. It would be an interesting inquiry—which he hoped someone would institute—to ascertain the separate value of each component of this preparation. He was inclined to think that the alcohol would be found to take no small part in the beneficial results. In some form probably alcohol had been used in the treatment of wounds from time immemorial, as in the rite of circumcision. He fancied there was more than met the eye in the application of wine and oil applied by the Good Samaritan, who might with much good reason be considered the first antiseptic surgeon on record.

Dr. W. IRONSIDE BRUCE exhibited a large number of radiograms showing the effects of gunshot injuries. He said that X rays could determine the exact position of a bullet in the tissues, and if the skin was marked it ought, theoretically, to be possible to cut down directly upon it and remove it. There were certain difficulties, however, which were encountered: 1. The distance, as estimated by X rays, conveyed nothing anatomically as to the situation of the bullet, for this depended upon the thickness of the skin, the subcutaneous tissues, &c. 2. For localisation it was necessary to make use of a vertical plane, and this should be followed absolutely at the time of operation. When, owing to surgical requirements, this was deviated from, no further use could be made of the X-ray localisation. 3. Immediately the incision had been made the marks on the skin were no longer useful. Consequently, the accurate information obtainable by X rays could not be utilised to the full.

Mr. W. H. H. JESSOP said that X rays gave certain evidence of foreign bodies in the eye. He had been impressed by the extraordinary number of cases of patients brought over from the war who were blind. He had seen four such. Nothing was observable by the ophthalmoscope, and without treatment other than rest perfect sight had been regained. In two others the blindness was accompanied by blepharospasm. These had also completely recovered. All had been exposed to shell fire, and, he thought, had probably been affected by it. He cited also the case of a patient who had formerly had miner's nystagmus. The man had enlisted, and after driving horses the nystagmus had returned.

Mr. R. P. ROWLANDS said that Sir Watson Cheyne in his valuable address had wisely confined his attention to the most vital question of all. The rapid and smooth healing of wounds was of the greatest importance to the soldier and to the country. Suppuration placed his life in jeopardy and militated against his early and complete recovery. It greatly interfered with primary or early operation for the repair of injuries of special structures, such as nerves, tendons, or bones. It was well known that secondary or late operations for these injuries were more difficult and less successful. When many men were seen returning with septic wounds, the dirty conditions under which most of the injuries were sustained should not be forgotten, and especially the unavoidable delay in treatment. It was very difficult for them, working under the most favourable circumstances at home, to realise the awful conditions of the war and the unparalleled difficulties which confronted their *confrères* in France, who by common consent were doing such devoted and heroic work. It was their duty to offer fair criticism and to help by suggesting practical methods which might be expected to improve the results. They could do this by (1) laying stress on the Listerian principles which governed the successful treatment of soiled wounds, and (2) by making some definite practical suggestions which could be actually carried out under the difficult and unexpected circumstances of this war. Sir Watson Cheyne and others had dealt with these points with great ability and detail. He would confine himself to some more general remarks. Most of the shell and shrapnel wounds were of necessity laden with bacteria from the skin, clothes, or from the peculiarly infective soil of Northern France or Belgium. The risk of infection from each of these sources was far greater than it was in the Russo-Japanese war. There, frequent bathing and changing into clean clothes, the absence of infective soil, and the intense cold were all favourable circumstances, which probably accounted for the good results obtained. It was obvious that clean and dirty wounds required very different treatment. Most were fairly satisfied with the aseptic treatment of clean operation wounds. The less these were irritated by mechanical or chemical violence the better they did and the greater freedom there was from pain. Before the revelations of this war most of the medical men at the front were so very familiar with the brilliant results of aseptic surgery and had so little experience of soiled wounds that the introduction of strong antiseptics into the wounds was abhorrent to them. They feared pain and sloughing. But dirty wounds required cleansing as soon as possible before bacteria multiplied and invaded the tissues. This was best

carried out by a combination of mechanical and chemical means. The longer the interval since the accident the more necessary were strong antiseptics which were capable of permeating the invaded tissues and inhibiting the growth of bacteria. Unfortunately strong antiseptics were useless and even harmful after 24 or 36 hours, and a great many of the wounds could not be adequately treated within that period. Under the present circumstances the antiseptic used must be strong enough to destroy spores in a short time. Strong antiseptics might prove to be particularly valuable when thorough mechanical cleansing could not be carried out owing to delay in getting to the field or base hospital. Liquefied carbolic acid was certainly a very powerful and valuable antiseptic which he had often used with advantage for earth-soiled wounds. But if we recommended its routine use difficulties of supply and cost might soon arise. Therefore he suggested the appointment of a committee of surgeons, bacteriologists, and chemists to discuss the variety and strength of suitable antiseptics. Their report would probably be very valuable. For sterilising the skin his colleague, Mr. Turner, had found picric acid, 1 per cent. solution in methylated spirit, at least as efficient and very much cheaper than the solution of iodine in general use. The most suitable dressing should also be discussed, for secondary infection of the apertures of bullet wounds seemed to be occurring in some cases. As regards other details of the primary treatment, free drainage and adequate antiseptic dressing were most important. When wounds were already septic free drainage, irrigation baths, and fomentations were the chief indications. Radical operations for the repair of nerves, tendons, and bones had to be deferred until sepsis had subsided. In conclusion, he said that it seemed to him that hope of improvement depended upon: 1. Getting the patients into the field or base hospitals earlier, especially by the use of special motor field ambulances instead of the slow and uncomfortable horse ambulances. 2. Increasing the staff and general facilities for cleansing the wounds at the field and base hospitals. There were numbers of medical men anxious to serve in this way. The present facilities made it quite impossible to carry out the routine treatment advised by Sir W. Cheyne. 3. More facilities for bathing and changing garments for the men in the fighting line. 4. Moving bad cases as little as possible. Now that the base was fixed it ought to be possible to keep the bad cases still and under observation. It was difficult or impossible to treat these cases adequately during long journeys to England. They all knew that the difficulties of the organisation and adaptation of the Royal Army Medical Corps in this war had been enormous, and that in spite of shifting bases and unforeseen circumstances the service had been brought to a state of efficiency unequalled by that of any other army. Still much remained to be done for the greater comfort and better treatment of the wounded. This great and rich country ought to provide everything for the sick and wounded without the aid of any outside society. Everything ought to be under one supreme head, and that head a medical man, who should have perfect freedom of action. He should be free to order as many medical men as were required for the front from time to time.

Mr. R. H. JOCELYN SWAN said that he had had experience of about 2000 cases of men wounded from the front at the Herbert Hospital, Woolwich. He thought the chief features in the treatment of septic cases were adequate drainage and disinfection. Nearly every case was septic, and the point of greatest importance was what was the best treatment to be applied at the front. They could not but realise the great difficulties experienced by the Royal Army Medical Corps, who were often working under fire, not only in the fighting line, but also in the field hospitals. At Woolwich, dealing with wounds which were already septic, they had opened them freely, washed out with hydrogen peroxide or weak permanganate solution, and drained without attempting to sew them up until the sepsis had been controlled. The organisms they had most commonly found were staphylococci, streptococci, these two combined, and organisms of the proteus group. There had been ten cases of tetanus. These had been treated by opening up the wound, disinfecting it with hydrogen peroxide, and injecting by lumbar puncture large doses of antitetanic serum. Two had died, seven were well, and one was still under treatment. He thought it wiser not to attempt an amputation when symptoms of tetanus had commenced, but to be content with opening up the wound freely. There were three cases of malignant œdema,[3] and pyocyaneus infection was not uncommon. A considerable number of cases of secondary hæmorrhage had occurred. Like Mr. Symonds he had been impressed by the lack of toxic symptoms, even in cases so severe as when large collections of pus formed in the knee-joint. There were 18 examples of skull injuries where the bullet entered and passed into the brain. In five the brain had been traversed completely, and two of these got quite well after the depressed fracture had been attended to. There were several cases in which the scalp wound was very small, but much comminution of the skull had taken place perhaps associated with cerebral abscess or subdural hæmorrhage. He thought that skull injuries should be dealt with forthwith, but abdominal and thoracic injuries were often well left alone. Cases of injuries to the chest with fluid in the pleura other than pus did not require surgical treatment. The same was true of abdominal injuries even if it appeared that the intestine had been traversed. He was averse to looking for bullets because X rays had shown their presence except in the case of skull injuries.

Sir JOHN BLAND-SUTTON said he had followed Sir W. Cheyne's opening remarks with the keenest interest. No advance, however, could be made by simply following in the paths of predecessors. Lord Lister himself had perpetually introduced changes in his methods. The middle course was the path of safety. While taking advantage of aseptic procedures, it was impossible altogether to avoid antiseptics. He himself had given up carbolic acid because he was peculiarly susceptible to its effects. For many years he had used perchloride, but lately had taken to iodine and was pleased with its results. It was a striking thing that, although these wounds were septic, they cleared up rapidly with fomentations and particularly well with peroxide of hydrogen, and when the sepsis had subsided foreign bodies could be cleared away, the wounds healing with astonishing rapidity.

The PRESIDENT announced that the next meeting of the society would be devoted to a discussion on the Treatment of Tetanus.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE.

Enteric Fever in War.

A MEETING of this society was held on Nov. 20th, Sir HAVELOCK CHARLES, the President, being in the chair.

Sir WILLIAM OSLER read a paper on the subject of Enteric Fever in War. He stated that the Empire was confronted with a great task in which the medical profession might take a leading part. Camp diseases had always played an important part in war, but of these enteric fever was by far the most serious, and, so far as this was concerned, we were now being put on our trial. There were four chief points to be noted: (1) The importance of the individual as a factor in infection which demanded careful preventive measures, and in particular the sterilising of the fæces and urine; (2) the existence of mild and unrecognised cases which were difficult to diagnose and which were often mistaken for malaria or pneumonia, as had happened in the Spanish-American and South African wars; (3) the discovery of typhoid carriers, who are a source of great danger, especially where they may be concerned with the handling of food, as in the case of cooks, bakers, or milkmen; and (4) the possibility of protection by immunisation which had produced most striking results. These were particularly shown in the case of antityphoid inoculation in the United States Army, which was voluntary from 1909 to 1911 and compulsory since 1911. The figures which he quoted were well known, and they were in his opinion conclusive as to the benefit of this measure of prophylaxis. Referring to the possibility of unpleasant after-effects, he had taken the trouble to investigate any cases which had been brought to his notice. Usually there were only some slight headache and rise of temperature on the day succeeding the inoculation, with some diarrhœa or constipation. There was, however, the possibility of more serious symptoms developing. As regards England's

[3] THE LANCET, Nov. 14th 1914 p. 1161

present position, he regarded this as singularly favourable, though it had to be remembered that there were 1600 cases of enteric fever in England in 1912, so that there was a possibility of an epidemic developing. In order to prevent this there should be a most careful scrutiny of all doubtful cases. Warning should be taken from the fearful experience of enteric fever among the recruits in America on the occasion of the Spanish-American war, when it was recognised that the disease was not so much water-borne, but was conveyed by fingers, food, and flies. The same record had been met with in most campaigns, and notably in the South African war. So far as the present war was concerned there was no record of any serious disability from enteric fever. He was unable to give definite information, but judging from cases received from the front in the Oxford base hospital it could not be very frequent, as he had only noted two or three cases. Yet all the time the conditions of the war were such as would naturally predispose to an outbreak of the disease, and under these conditions he considered that it would be a great triumph for sanitation if no devastating outbreak of enteric fever were experienced during the war.

The PRESIDENT congratulated Sir William Osler on his contribution to the important subject under discussion, and expressed his strong belief in antityphoid inoculation. He quoted statistics to show the great improvement which had taken place in the health of the Indian army since this had been introduced. He regarded the problem of typhoid carriers as a very serious one, and in India isolation stations were arranged for convalescents from typhoid who still retained the infection. Paratyphoid cases were also very troublesome, many of them becoming chronic carriers.

Sir JOHN BROADBENT referred to the insidious character of paratyphoid and the frequency with which this might be conveyed by carriers. He pleaded for greater care in dealing with the problem of the excreta in camps at home, and recommended the S.O.S. system, which not only rendered sewage innocuous but made it possible for it to be utilised.

Dr. WALTER BROADBENT stated that he had investigated six cases of illness after inoculation at Brighton. The first was one in which an attack of pneumonia supervened the day after the first dose of vaccine, and terminated fatally on the seventh day. Although the patient was feeling unwell he did not lie up, and so caught a chill and developed pneumonia. In the next series of four cases feverish symptoms developed six to eight days after the second dose of vaccine. Feverish symptoms persisted for some days, but in the end recovery was complete. These men were inoculated on the same day, and perhaps there might have been some defect in the vaccine. In the sixth case the symptoms of fever came on two days after the second dose of vaccine. He also appeared to be doing well when last seen.

Dr. E. W. GOODALL, after referring to the conclusive results of inoculation, expressed disappointment that they had not received more detailed news from the front. France and Belgium had been regarded as lands in which enteric fever was particularly rife. He had treated Belgian cases, but found it very difficult to obtain reliable particulars, though reference had been made to the existence in France of special typhoid wards. He was somewhat sceptical as to the importance of typhoid carriers, but believed that the danger of personal infection should be recognised.

Dr. G. NEWTON PITT referred to an attack of sclerotitis occurring after inoculation as might happen in a case of gonorrhœa.

Fleet-Surgeon P. W. BASSETT-SMITH, speaking from the naval point of view, stated that inoculation was widely used in the navy. He knew of a case where a typhoid carrier was the means of carrying enteric fever from one ship to another.

Dr. J. M. ATKINSON thought men were sent to the front too soon after inoculation, and gave instances of influenza and albuminuria which had come on after inoculation.

Dr. F. M. SANDWITH questioned whether the deltoid region was the best site for inoculation. He had performed more than 1000 inoculations without any untoward results, and he believed that such ill-effects when they occurred were due to failure to take care after inoculation. He quoted a case where several men who had been inoculated were allowed to go for a route march the next day and consequently fainted. There should be 24 to 36 hours' rest after each inoculation. Segregation was of great importance in the treatment of enteric fever, and in the matter of the disposal of sewage he recommended the use of an incinerator. Carriers were specially important in India.

Dr. R. A. O'BRIEN alluded to a method of using slaked lime to disinfect typhoid stools. One tablespoonful of slaked lime was added to a cupful of boiling water, which generated sufficient heat to destroy bacilli. He had noticed records of outbreaks of enteric fever among German troops at Lille and Roubaix. This was an interesting fact when it was realised that the Germans had somewhat despised English methods of dealing with the disease.

Sir WILLIAM OSLER, in reply, referred to the suggestion that the rehearsing of cases of illness following inoculation might deter people from submitting to it. He contended that the people should be told the full truth, and that in the end they would trust in their medical advisers. Few therapeutic measures, even such as hypodermic injections, were devoid of all risk, yet they were not neglected on that account. He considered that the problem of the disposal of sewage was a most urgent one, and he was glad that medical officers of health throughout the country had the matter in hand. As to the question of carriers, the danger arose when the individual had to deal with food—e.g., a cook. He agreed with Dr. Sandwith that the deltoid region was not the best for the inoculation. He preferred the pectoral region or the abdominal wall. He was interested in the system of disinfection mentioned by Dr. O'Brien. Referring to the case of sclerotitis he mentioned a case of monarticular rheumatism which appeared to be very similar to a gonorrhœal attack. He agreed also that men should not be sent to the front too soon after inoculation.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Exhibition of Specimens.—The Heart and Kidneys in Pregnancy.

A MEETING of this section was held on Oct. 30th, Dr. M. J. GIBSON, the President, being in the chair.

Dr. GIBBON FITZGIBBON showed a Uterus with Malignant Adenoma removed from an unmarried patient, aged 60, who had been told when 35 years of age that she had a fibroid and advised not to have it removed. Menstruation was always normal, and the menopause occurred at 48 normally. Since then there had been no bleeding or discharge until seven months before being first seen by Dr. FitzGibbon. Bleeding had then occurred and lasted 14 days, and had been recurring irregularly ever since, and sometimes profusely. On examination the uterus was uniformly enlarged, about the size of a four months' pregnancy, somewhat soft, and the cervix small and atrophic. The diagnosis was myoma, probably undergoing some degeneration. After laparotomy and panhysterectomy the patient made an excellent recovery. The specimen showed a soft cauliflower growth filling up the cavity of the uterus and growing all over the walls, which were very thick, about 1¼ inches. Sections of the growth showed typical adenoma with very marked malignant characters in some parts, and invading the wall of the uterus. The cervix was quite free from invasion.—Sir WILLIAM SMYLY said there could be little doubt that it was a myoma which had been invaded by a cancer.—Dr. R. J. ROWLETTE said the specimen appeared to him to be a carcinoma occurring in a uterus already the seat of a fibroid. Such an event was not uncommon where a fibroid gave rise to irritation of the endometrium.—The PRESIDENT said that since carcinoma of the body was commoner in cases where fibromyomata were present than in cases in which they were absent, and since degeneration of fibromyomata was most usual after the menopause, it was necessary to abandon the opinion that after the menopause fibromyomata were not likely to give trouble.

Dr. B. SOLOMONS showed a Fibroid Uterus from an unmarried woman aged 27, who came to hospital complaining of uterine hæmorrhage. On examination fibroid uterus was diagnosed, though the uterus was quite smooth and felt like an ordinary myometritis. Palliative curettage and styptic treatment were carried out, but the hæmorrhage recurred, and she

returned to the hospital. The abdomen was opened in the hope of performing myomectomy, but when the uterus was opened it was found to be studded with myomata, some submucous, others interstitial, and hysterectomy was done. The case showed how impossible it was to promise myomectomy.—Mr. S. SHEILL considered that the most important point about the specimen was the early history.—The PRESIDENT considered that hysterectomy was the only course which could have been adopted in this case.

Dr. V. J. MCALLISTER gave a summary of the various conditions of the heart which might influence pregnancy, and the forms of renal lesions which might pre-exist or occur during pregnancy.—Sir WILLIAM SMYLY said that in practice one had to go according to symptoms much more than physical signs; if the heart was competent it might be left alone, but if it became incompetent it would be necessary to try to restore it by strophanthus and digitalis, and if not successful the patient should be delivered. He always advocated that in case of kidney disease which did not improve under treatment the uterus should be emptied.—Dr. E. HASTINGS TWEEDY said he held that all the pathological conditions found in association with toxæmia arose as a consequence of the poison, and in no instance was the poisoned state the result of the kidney lesions. He was glad to understand that the deleterious influence of milk and other foods had become recognised, at all events in Dublin, as a causal agency in eclamptic fits. He was convinced that foodstuffs acted as partial poisons to almost all pregnant women, which accounted for the presence of morning sickness. A tolerance against these food poisons became established in most instances, but when this was not so acute toxæmic degeneration resulted.—Dr. W. M. CROFTON said that in certain cases of eclampsia he had found the urine badly infected with micro-organisms. It might be well to examine the urine bacteriologically in order to see if this was a common occurrence. In pregnancy there was usually great hypertrophy of the suprarenals, and if the secretion of these was unbalanced this might be a cause of the high blood pressure.—Dr. SOLOMONS said that everybody seemed to accept the food theory as advanced by Dr. Tweedy. He mentioned a case of eclampsia where the patient was well for 24 hours, but when milk was given a fatal result ensued.—The PRESIDENT said that he had seen a certain amount of trouble, even in ordinary uncomplicated disease of the heart. The increase of blood pressure during pregnancy or labour told on a diseased heart. In cases of the toxæmia of pregnancy he considered the blood pressure of great importance. He failed to see how food could produce the toxæmia of pregnancy, but when toxæmia was present food, and particularly milk, should be withheld until the toxæmia had definitely decreased.—Dr. MCALLISTER, in reply, referred, among other points raised, to the relationship between blood pressure and eclampsia. He considered it more favourable for a patient to have a moderately high blood pressure if she had or was going to get eclampsia. He thought that possibly many patients did not get eclampsia because their blood pressure was high.

HUNTERIAN SOCIETY.—A meeting of this society was held on Nov. 11th at the Barbers' Hall, Dr. T. Glover Lyon, the President, being in the chair.—Dr. Alexander Morison read a paper on Pernicious Anæmia. He said that the exact discrimination of pernicious anæmia was possible only after careful examination of the blood picture. Alone among anæmias it showed a great reduction of total red blood cells, a large proportion of megalocytes, a high colour index, and usually a reduction and never an excess of white cells. After death there was always in the liver, and usually in the spleen and kidneys, a peculiar deposit of iron rendered visible to the naked eye by a special test. The onset was probably insidious in every case, an apparently acute onset being a culmination, not a commencement, and corresponding to a septic phase in the disease. The termination was uniformly fatal. Functional disturbances, due to abnormalities in the blood-supply, appeared first, organic lesions later on. Superficial extravasation was never extensive; small visceral extravasation had been detected on microscopic examination after death. The disease might be due to a blood destruction or to a disorder of blood production. The constant features of the condition would suggest a constant cause. Dr. William Hunter assigned an oro-gastro-intestinal origin to the disease, but sepsis of the digestive tract was common, and pernicious anæmia was rare. The establishment of a specific bacterial, protozoic or toxic cause would favour the view of hæmolytic origin. Some thought the disease due to a faulty elaboration of the blood. The notable deposit of hæmosiderin would thus be due to the presence of an excess of megaloblasts and megalocytes, not to excessive blood destruction, the cause of the disease being not necessarily from without or toxic, but none the less a malignant one, which was preventing normal blood development. After rest and fresh air, treatment consisted in the rectification of errors in mouth, stomach, and intestine. Arsenic, either in inorganic form or as salvarsan, held out the best hope. The latter was preferable when the patient was under constant observation, the inorganic form being given afterwards in small doses. He had used salvarsan mostly in 0·2 gm. doses (=1/13 grain arsenic) suspended in oil given intramuscularly every week, or 0·4 gm. every fortnight; benefit was usually but not always marked. He had never succeeded in raising the red cells to 5,000,000. The effect of arsenic in promoting the elaboration of blood was attributable to its stimulation of the blood-producing organs, either directly or through the nervous system.—Mr. A. White Robertson, in a paper on the Master Toxin, said that our knowledge of the processes at work in any toxæmia was inadequate and fallacious without a knowledge of the serological and cytological state of the blood. It was to the white cells and not the red that we must first look for information of a toxic condition of the blood. He had been able from a simple blood examination to identify in cases with widely differing symptoms the master toxin, whose subversive agency had allowed the development of the secondary invasions. Recurrent malaria, especially of the subtertian type, not only masked many subsequent diseases, but actually laid the patient open to them. Similarly, it was well recognised that gonorrhœa and syphilis were followed by loss of resistance to other infections. In his opinion measles, whooping-cough, and influenza, no less than exposure, accident, and mental shock, acted frequently as neuro-depressants and predisposed to tuberculosis and the many other bacterial disorders, even perhaps after a period of years. Our duty, then, must be to realise that the after-treatment of these neurotoxic conditions was, if possible, of greater importance than that of the immediate symptoms. After long study of the blood changes in tuberculosis, he had concluded that if the master toxin were recognised and dealt with, the disease was entirely curable by a direct immunising process. The master toxin arose from the coli group, and X ray examination confirmed the presence of intestinal stasis. Recent investigations were opening out a wider conception of the influence of these master toxins, as witness recent papers by Mr. Rupert Farrant on the thyroid,[1] and the results of Sir Arbuthnot Lane's abdominal surgery in such different sequelæ of stasis as tuberculous hip-joint, goitre, and Raynaud's disease.[2] He had lately begun to have a suspicion that there might be some connexion between the mutant coli group and pernicious anæmia. We might yet come to insist upon X ray examination of the gastro-intestinal tract in this disease. He would like to see such an examination made legally compulsory before any case of dementia was transferred to an asylum.—The papers were discussed by Dr. W. Langdon Brown, Dr. Morison, Dr. O. K. Williamson, Dr. S. Russell Wells, and Dr. Mackenzie Wallis.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—A meeting of this society was held on Nov. 13th, Mr. Herbert Jones, the President, being in the chair.—Dr. W. J. Howarth read a paper on the Marking of Meat. He said that in the term marking of meat he included the marking of the carcass either by certificate, label, seal, tag, stamp or brand, or by any other method, such mark to indicate that the meat had been examined and approved as fit for human consumption and to give information as to the date and place of inspection, and of the person making the inspection. About 18 years ago the question of marking meat was under consideration in a fairly acute form owing to the development of the colonial meat trade. Since then the importation of live animals had practically ceased and there had been an enormous increase in the chilled and

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[1] THE LANCET, March 7th, 1914, p. 680.
[2] THE LANCET, March 15th, 1913, p. 755.

frozen meat trade which had become centralised until it was now almost entirely in the hands of large firms who had gradually improved their work by the application of better methods and had brought the quality of imported meat up to a high standard. Home-grown meat always had been, and still was, the best meat, and the arguments in favour of marking were mainly that it prevented substitution. Definite proofs of injurious effects resulting from the partaking of unsound meat had not been common—a fact that was possibly due in this country to the general custom of cooking meat, though it could not be denied that real dangers did exist. The actual nutritive value of meat should be considered, and more attention was now directed to this than was formerly the case. Meat should not only be sound but should possess a distinct nutritive value. To mark meat after examination of the carcass alone would be a retrograde step, if for no other reason than that such an examination would in many instances be unreliable. The only place where a really satisfactory and reliable decision as to the suitability of a carcass for human consumption could be made was at the place of slaughter, when every organ was available for inspection. The want of uniformity in meat inspection and the deficient facilities for inspection would render a general compulsory system of meat marking impracticable at the present time, but considerable advantage would be derived if some form of optional marking could be devised. The Local Government Board should be requested officially to approve a system of meat marking, and should decide upon the nature of the mark and the manner of marking, and take steps to safeguard the use of the mark only by a recognised authority. The power to use the mark should only be granted on request and after the Board was satisfied that satisfactory inspection of meat was in force in the district concerned.—Dr. R. Veitch Clark considered that the private slaughter-houses increased the difficulties connected with the control of meat supplies. Although he thought that in the course of time an extensive system of meat marking would have to be adopted, he was of opinion that the time was hardly ripe for the development of an optional scheme. Experience in Leeds had shown that stricter inspection resulted in indifferent meat being sent to be sold outside the town.—Dr. W. A. Bond agreed that the marking of meat even on an optional basis was very desirable.—Dr. G. Buchan feared that optional marking would press hardly on the honest butcher, and he advocated the giving of compensation to the butcher who bought an animal in good faith which was subsequently condemned as unsatisfactory.—The President pointed out that the question of meat marking was altogether bound up with that of the abolition of private slaughter-houses. He was not convinced that any system of optional marking would be either practicable or desirable, though he was in favour of the adoption of a general and uniform scheme for the whole country.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Nov. 4th, Dr. W. R. Smith, the President, being in the chair.—Dr. C. H. Cattle gave a lantern demonstration illustrating Irregularity of the Heart-beat. Reference was made to the great advances in our knowledge of this subject due chiefly to the clinical and experimental investigations in this country of Dr. J. Mackenzie and Dr. T. Lewis. The classification of irregularities now generally adopted followed the lines laid down in the well-known works of those writers. Among the more common forms of cardiac disorder referred to were the following:—(1) Sinus arrhythmia, or the youthful type of irregularity; (2) delayed conductivity and heart-block; (3) premature contraction of auricle or ventricle; (4) tachycardia with regular or irregular rhythm; (5) auricular flutter and auricular fibrillation; and (6) exhausted contractility and pulsus alternans. Tracings were shown illustrating the normal and abnormal forms of venous pulse, and reasons were given for the change of type during auricular fibrillation. It was also shown how the different forms of cardiac irregularity may be differentiated both by means of the polygraph and other clinical methods. Valuable as the graphic method undoubtedly is, its results must always be taken in connexion with a complete survey of all the clinical features of a case. An attempt was made to explain the action of digitalis, and illustrations were shown of its effect in slowing the heart and occasioning coupled beats.

Reviews and Notices of Books.

The Curves of Life: Being an Account of Spiral Formations and their Application to Growth in Nature, to Science, and to Art, with Special Reference to the Manuscripts of Leonardo da Vinci.

By THEODORE ANDREA COOK, M.A., F.S.A. With 11 plates and 415 illustrations. London: Constable and Co., Limited. 1914. Pp. 479. Price 12*s.* 6*d.* net.

MORE than 20 years ago the author, after a long visit to the banks of the Loire, produced for the inspection of some distinguished biologists a photograph of the inside of the open staircase at Blois, showing the spiral lines carved on the central column and the vaulting, when the late Professor Charles Stewart "loudly proclaimed his recognition of the spiral curves therein depicted," and asserted that "the curves upon its central columella were identical with those of *Voluta vespertilio*." The shell was fetched, "a longitudinal incision was made, and the four-fold spiral revealed within upon the columella. In spite of many other conflicting interests and duties," says the author, "I have thought of that chance discovery ever since." The result is a wonderfully suggestive volume, with its profusion of beautiful and appropriate illustrations culled from organic and inorganic nature and from some of the masterpieces of art to show that "with very few exceptions the spiral formation is intimately connected with the phenomena of life and growth." The author, having an intimate knowledge of the work of Leonardo da Vinci, enters into a critical exposition of the evidence which leads him to the conclusion that the name of the unknown architect of the left-hand spiral staircase in Blois was none other than Leonardo himself.

As the author's investigations on "spirality" broadened—and they ranged amongst living forms from the microscopical foraminifera and spirilla to the nautilus, which most closely approximates to a logarithmic spiral—aid was required to pursue the subject. With the assistance of expert authorities in separate divisions of research he has now presented in well-reasoned and suggestive chapters, supported by many literary references, an array of facts to illustrate the prevalence of the spiral in natural structure and phenomena. As these facts arrange themselves in his mind, a mind keenly alive to resemblances and differences between things, they lead him to suggest on occasion some remarkable analogies.

The range of subjects dealt with is so varied that even students of anatomy and morphology will find new light thrown upon familiar phenomena. After giving an account of the growth and beauty of spiral formations and the simpler mathematics of the subject, the author urges that nature and art are never mathematical, yet he is ever in pursuit of "sequences of events" to which mathematical expression can be applied. Every department of knowledge has been laid under contribution; spiral nebulæ, clouds, and whirlwinds, crystals, screws, the "mirror writing" of Leonardo, spiral eddies in dust and smoke, upright and flat spirals in shells, all come in for comment; and spiral leaf arrangements, phyllotaxis, climbing plants, right-hand and left-hand spiral growth in plants, spirals in horns, and spirals in human and animal anatomy

are discussed. Mr. Cook traces spiral decoration onwards from prehistoric times, through ancient civilisations to the modern era. Some principles of growth and beauty are lucidly explained by references to the works of Dürer, Dante, Leonardo, and Goethe, while in architecture the author finds a subject in which he delights to instruct us from an obviously first-hand and intimate acquaintance with the subject.

Mr. Cook has written this book with sincere conviction of the truth of his views, and while not agreeing with some of the deductions we most highly commend the exceedingly interesting, and in many cases unconventional, manner in which he has done his work. He has let in much light on obscure problems and added a fascination to the study of "spirality" in art and nature. To medical men Chapter XIII., on spiral formations in the human body, will prove particularly interesting and in some respects quite novel.

A Manual of Surgery for Students and Practitioners.

By FRANCIS T. STEWART, M.D., Professor of Clinical Surgery, Jefferson Medical College. Third edition. With 571 illustrations. London: J. and A. Churchill. Pp. 742. Price 16*s.* net.

THE text-books of surgery are becoming very numerous, and there must be one to suit every taste. The work before us can be safely recommended to the student, though in the endeavour to compress the whole of surgery into a comparatively small compass the author has found it necessary to give somewhat brief accounts of many operations. The descriptions, however, are sufficiently long for most purposes, and the fact that it has been found advisable to include an account of gynæcological surgery in the volume also leaves less room for other portions of the subject.

There are many parts of the book which are especially good. We may mention the account of the interpretation of skiagrams; and this is of great importance, for many surgeons do not grasp the fact that the method in which a skiagram is taken has an enormous influence on the appearance shown, so that in a fracture it is possible to make the fragments appear to overlap or to have an interval between them according to the relative positions of the tube, the limb, and the plate. We should have liked to have the evidence on which the author bases the opinion that the value of iodoform in tuberculosis is due to the fact that the iodine formed irritates the tissues and so gives rise to the formation of fibrous tissue. We cannot agree with the author in the statement that the pigment in a melanotic sarcoma is sometimes due to the decomposition of extravasated blood. It is true that hæmorrhagic pigmentation may be seen in a sarcoma, but that does not make it a melanotic sarcoma; the two conditions are absolutely distinct. It is curious to meet with the statement that venereal warts may occur "spontaneously." It is being generally recognised now that all warts are microbic in origin, and that they are never the result of mere irritation, and certainly never occur spontaneously.

However, these are small points. The net impression given by reading the book is that it is a sound, practical, and comprehensive guide.

LIBRARY TABLE.

Field Ambulance Notes. By Captain M. F. GRANT, R.A.M.C. London: Forster, Groom, and Co. 1914. Pp. 146. Price 2*s.*—This little book appears opportunely, when so many medical men are setting themselves to study, and carry out in actual practice, the work of the army surgeon in the field. No one without considerable experience can carry in his head the various points of detail in regard to transport, equipment, and procedure which it is necessary for every medical officer actively employed to be acquainted with. In this pocket-book will be found collected from various sources all that concerns the mobilisation, organisation, equipment, &c., of field ambulances, clearly set forth in a form suitable for reference. It is quite up to date. Territorial Force Regulations are quoted when necessary, and in the last chapter a summary is given of the field ambulance equivalents in foreign armies.

Physics. Third edition, thoroughly revised and amplified, and containing an entirely new chapter on the electron theory and radio-activity. By C. G. KNOTT, D.Sc. Edin., F.R.S.E. London and Edinburgh: W. and R. Chambers. Pp. 370. Price 7*s.* 6*d.*—This is an excellent text-book which should admirably fulfil its purpose; it is intended for the use of junior students, and more especially medical students in their first year of study. The issue of the third edition has given the author the opportunity of adding a new chapter on the electron theory and radio-activity, while the book throughout shows evidence of revision and amplification in accordance with modern developments. The subject is divided into two parts, the first of which deals with matter and energy, and the second with matter, ether, and energy. In the former are the subsections (*a*) properties of matter, (*b*) heat, and (*c*) wave-motion, and in the latter (*a*) electricity and magnetism and (*b*) radiant energy. This plan presents a clear division of the general subject according to modern acceptations. The book is clearly written, and the references "to familiar facts of observation and to experiments of the simplest character" make it a real educational aid to the reader studying physics for the first time.

Medical and Pharmaceutical Latin for Students of Medicine and Pharmacy. By REGINALD R. BENNETT. With an introduction by HENRY G. GREENISH. Second edition. London: J. and A. Churchill. 1914. Pp. 443. Price 6*s.* 6*d.* net.—The first edition of this book was reviewed in THE LANCET of August 4th, 1906, and we then took occasion to share the regret expressed by Mr. Greenish, who contributes the introduction, on the gradual abandonment of Latin as the language of prescription writing. The principal changes in the present edition consist in a careful revision and some rearrangement of certain sections, while more modern prescriptions have on occasion been substituted for older ones, and the vocabularies have been enlarged by the inclusion of recent terms of medical and pharmaceutical nomenclature. On p. 5 carbasus and alvus, two feminine nouns, are included without warning in the list of masculine nouns of the second declension, though the gender of both is given rightly in the Latin vocabulary.

Physical Chemistry, its Bearing on Biology and Medicine. By JAMES C. PHILIP, M.A., Ph.D., D.Sc. Second edition. London: Edward Arnold.

Pp. 326. Price 7s. 6d. net.—The importance of a knowledge of physico-chemical principles when dealing with great biological questions has become more and more obvious during recent years. The study of biochemistry has in fact become an essential in the medical curriculum, and considerable progress has been made in medical science by the application of physico-chemical principles. We have only to refer to a selection among the chapters in this useful book to find what an important bearing the subjects therein treated have on physiological processes. For example, we may mention osmotic pressure, permeability and impermeability of membranes, electrolytic dissociation, colloidal solutions, adsorption, and so forth. The story is set out just as it should be for students of medicine, who will find here clearly stated examples of the application of physico-chemical principles taken from the fields of biology, physiology, and medicine. This second edition brings the work up to date, as is evident from the references to recent work.

JOURNALS AND MAGAZINES.

Journal of Anatomy and Physiology. Conducted by Sir WILLIAM TURNER, K.C.B., Professor ALEX. MACALISTER, Professor ARTHUR THOMSON, Professor ARTHUR KEITH, and Professor ARTHUR ROBINSON. Vol. XLIX. Third Series. Vol. X., Part I. October, 1914. London: Charles Griffin and Co., Limited. Annual subscription 21s., post free.—Two articles, both dealing with the descriptive anatomy of early human embryos, occupy most of the space in the present issue. The first of these, by Mr. H. L. Barniville, was carried out in Professor Wiedersheim's laboratory, and deals with an embryo of 8·5 mm. The paper is a remarkably exhaustive one and well illustrated, and it furnishes an extremely useful record of the condition of development at this stage. There are several points of special interest connected with Mr. Barniville's description of the organs and parts of this embryo. In particular we would note the suggestive condition of the cæcal region, and the bearing of the state of the parts upon the work of von Berenberg-Gossler, whose views the author adopts. The work is extremely thorough, and it is a little depressing to note how few British works are quoted in the copious bibliography. The second contribution to human embryology is by Professor David Waterston, and it deals with an embryo of 2·9 mm. This embryo is at an interesting stage of development, and the description makes a good landmark in the progress of formation of human organs. Professor Waterston lays special emphasis upon the heart and pericardium, and for the other systems he gives a summary of the conditions met with. These two papers make interesting reading when taken side by side, and the reader will find much to arrest his attention and compel thought. We note that Professor Waterston estimates the age of his embryo at somewhere near 30 days, while Mr. Barniville places his at 35.—Dr. J. S. B. Stopford contributes a paper upon the Supracondyloid Tubercles of the Femur. The communication points out the precise origin of the medial head of the gastrocnemius. The paper was wanted, for there is much incorrect teaching at present upon this point.—Professor J. A. Pires de Lima, of Oporto, describes a case of Bifid Penis with Penial Hypospadia. The case is not a common one and is of interest. The explanation of its development as given by the author is obviously the true one.—Mr. J. Wilfrid Jackson discusses the Dental Mutilations in Neolithic Human Remains. The neolithic skulls he describes are those discovered by himself in Dog Holes, Lancashire. The mutilation consists in the removal of upper central incisors and lower second premolars, practices very similar to those indulged in by many races to-day.

Malaria e Malattie dei Paesi Caldi. Anno V., Fasc. IV. August 20th, 1914. Rome: Via Farini 62.—This number contains a further communication by Professor Tizzoni and Dr. A. de Angelis on the Streptobacillus of Pellagra in which they explain the reason of the polymorphism shown by this organism previously described by them, and prove the relationship between it and the lower hyphomycetes. Dr. A. Gasbarrini gives his experiences of the Wassermann reaction in cases of malaria. He examined 43 cases, and obtained a positive result in 18·6 per cent. The reaction generally disappeared a few days after the defervescence of fever, but its intensity had no relation with the presence and variety of the plasmodia circulating in the blood nor with their number. In latent malaria the reaction was always negative.—Dr. F. Scordo discusses the nature of certain granular bodies recently described by Wenyon in kala-azar. He is of opinion that since these bodies are often absent in cases of typical Leishmaniosis, their appearance may be due to a collective degeneration of the parasites caused by some hitherto unknown reason.—Professor Ilvento and Dr. Mazzitelli describe the cases of plague treated at Tripoli from June to September, 1913. Under the heading Pesticæmia are the cases of two infants at the breast of plague-stricken mothers, one of whom died. The sudden and unexpected death of the children without any apparent lesion excited suspicion, and blood obtained by aspiration from the heart of the corpse gave positive microscopic and cultural evidence of Yersin's bacillus. With regard to therapeutic measures intravenous injections of corrosive sublimate were used in three cases without appreciable advantage. Subcutaneous injections of electrargol were resorted to in five cases and were followed invariably by an improvement in the general symptoms. The last 17 cases were treated by peribubonic injections of solution of iodine 1 centigramme in 2 cubic centimetres of solution of iodide of potassium, four subcutaneous doses of half a cubic centimetre being given daily. While intraglandular injections of iodine aggravated the local and general symptoms, this periglandular treatment, combined with the application of ice, was well tolerated. All the cases thus treated, even after the appearance of grave initial symptoms, exhibited a rapid improvement in general symptoms and abortive febrile course.

The Dental Record.—The November issue contains a paper on the Treatment of Root Canals, by F. D. Lamb. The author considers that many of the unsuccessful results are due to lack of care in carrying out the cleansing and filling of the canals. He discusses in a critical manner several of the methods usually adopted. There is a translation from *La Revue de Stomatologie* (April, 1914) of a paper by Pierre Robin, on the eruption of the deciduous and permanent dentition. A graphic table is given, but the data are open to criticism. An account is given of an unusual type of maxillary cyst arising in connexion with the left permanent canine, the root of which had pierced the floor of the orbit.

CENTRAL MIDWIVES BOARD.—A meeting of the Central Midwives Board was held at Caxton House, Westminster, on Nov. 19th, Sir Francis H. Champneys being in the chair. A letter was considered from the clerk to the guardians of the Walsall union with regard to the resolution of the Board refusing to admit to examination a candidate who had tendered a birth certificate which had been tampered with. The Board directed that the clerk to the guardians of the Walsall union be informed that the Board regrets that it is unable to condone the serious offence of which the candidate has been guilty. It is willing, however, to allow her to apply again in October, 1915, on forwarding evidence satisfactory to the Board that she appreciates the gravity of her offence and is resolved to behave honestly in future. A letter was considered from the clerk of the Bucks county council asking whether the local supervising authority has any jurisdiction over a certified midwife when acting in the capacity of a nurse under a medical practitioner in attendance on a confinement. The Board decided that the clerk of the Bucks county council be informed that a midwife acting only as a nurse is amenable to the Act and also to some of the rules (e.g., Rule E.5), but not to all. A letter was considered from a certified midwife, who was approved by the Board at its last meeting to undertake the training of pupil midwives, asking whether the qualifying 15 lectures may be spread over a period of seven weeks only. The Board directed that the approval of this midwife be suspended until the Board has satisfied itself that she knows and is prepared to carry out the rules of the Board.

Reports and Analytical Records
FROM
THE LANCET LABORATORY.

1) "TABLOID" HEXAMINE; (2) "TABLOID" SODIUM ACID PHOSPHATE.

(BURROUGHS WELLCOME AND CO., SNOW HILL BUILDINGS, LONDON, E.C.)

1. Hexamine is the name now officially given to hexa-methylene-tetramine in the new British Pharmacopœia. It is accepted as a useful diuretic, uric acid solvent, and antiseptic. The above firm actually manufacture the substance at their works at Dartford, Kent, and the refined product answering the official tests of purity is issued in tabloid form containing either 3 or 5 grains of hexamine. 2. The tabloid sodium acid phosphate is designed for use in conjunction with hexamine, the activity of which it encourages by increasing the acidity of the urine. The combination is thus useful in the treatment of cystitis, gonorrhœa, and other infective diseases of the genito-urinary tract.

JEYSOL.

(JEYES' SANITARY COMPOUNDS COMPANY, LIMITED, 64, CANNON-STREET, LONDON, E.C.)

This is a well-prepared combination of fatty acids and alkali with powerful germicidal tar acids. It is perfectly clear and mixes in all proportions with water, forming an alkaline bright solution. We found approximately 50 per cent. of tar acids present, and according to their iodine value it is obvious to us that very effective tar derivatives (from a germicidal point of view) have been used for the purpose. In other words, the chemical indications are in favour of a satisfactory carbolic coefficient, having regard to the fact that the preparation mixes perfectly with water and does not form an emulsion. Its cleansing and detergent properties should render it of particular value in surgery, while in convenient dilutions it may be used with good results in the treatment of infective throat troubles.

HÆ-MO-PHOSPH.

(THE HÆ-MO-PHOSPH MANUFACTURING COMPANY, SHELTON, STOKE-ON-TRENT).

Hæmophosph is a dark brownish-red somewhat viscid fluid which on analysis shows distinctly the presence of hæmoglobin and of coagulable albumin. Clinical reports appear to have established the value of this preparation as a hæmatinic. Shortly, it may be described as a tonic food of service in enfeebled conditions. According to our analysis it contains 23·81 per cent. of solid matters, and mineral matter 1·48 per cent. On heating the fluid coagulation of the albumin results, and we find that this amounts to 18·71 per cent. A dilute solution of hæmophosph when examined spectroscopically showed the well-known absorption bands of hæmoglobin.

OXFORD MARMALADE.

(FRANK COOPER, OXFORD.

We may accept the assurance that this marmalade is prepared with care and made from superior materials inasmuch as it is of attractive consistence and the flavour of the Seville orange is well preserved. Its dark colour is due no doubt to considerable boiling. Those who make marmalade at home as a rule forget that a superior product is always obtained by prolonged boiling. We examined the marmalade for objectionable preservatives, but with negative results. Analysis gave the following figures: total sugar, 55·55 per cent.; moisture, 38·59 per cent.; orange skin tissue, 5·53 per cent.; mineral matter, 0·33 per cent. Marmalade is a favourite adjunct at the breakfast table, and there is no doubt of its wholesomeness.

ANTISEPTIC WATERPROOF MATERIAL.

(JAMES SPICER AND SONS, 50, UPPER THAMES-STREET, LONDON, E.C.)

Our attention has been called to this material as likely to supply a demand at the present crisis for an economical waterproof material for bandages and bedsheets in the place of oil silk and rubber fabric. We have examined this material and are able to confirm the claims made in regard to it. It appears to be ordinary wrapping paper made waterproof by a film of waxy material. On steeping the paper in alcohol the waterproofing substance is removed. The material is not damaged, we find, by the ordinary fluid antiseptics used in surgery, but iodine leaves an apparently indelible stain. We certainly agree that this material would be of great service, especially at a time of colossal necessity.

TOXOL.

(MESSRS. BOOTS, STATION-STREET, NOTTINGHAM.)

Toxol is a clear dark brown fluid representing a careful combination of cresols with oil soap. We separated the cresols from the soap by means of the baryta method and the yield was approximately 55 per cent. of cresols by volume. The cresols chosen for the preparation are evidently of high germicidal power, judging from their chemical characteristics. The iodine combination value indicated a carbolic coefficient of at least three. The preparation should be of service where an efficient disinfectant as well as detergent is required.

HOOKER'S MALTED MILK.

(THEW, HOOKER, AND GILBEY, 6, HOLBORN VIADUCT, LONDON, E.C.)

The effect of the enzymes of malt upon milk in rendering it decidedly more easy of digestion is very evident in this preparation. The dry powder forms with water a regular emulsion with a milky appearance, the fat thus being evenly distributed. On adding acid to the fluid a copious coagulation of casein takes place, but it does not separate in curds but in fine particles. This is a valuable characteristic in infant feeding. According to our examination the preparation still shows enzymic activity and is quite free from starch. Its flavour is pleasantly malty and milky. Our analysis was as follows: Moisture, 1·50 per cent.; mineral salts, 3·50 per cent.; maltose and lactose, 55·80 per cent.; dextrine, 16·00 per cent.; protein, 14·00 per cent.; and fat, 9·20 per cent. From these figures it will be seen that this preparation furnishes a complete food which, owing to its careful method of production, is readily assimilated. Over 80 per cent. of the preparation is soluble in warm water.

HETROFORM.

(CHARLES ZIMMERMANN AND CO. (CHEMICALS), LIMITED, 9 AND 10, ST. MARY-AT-HILL, LONDON, E.C.)

Hetroform is described as an improved urinary antiseptic. It is, in fact, a compound of hexamethylene-tetramine with benzoic acid. The object of such a combination is obvious, for in the

urinary passages both antiseptics, formaldehyde and benzoic acid, are slowly set free. Further, the urine assumes an acid reaction.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ANNUAL MEETING OF FELLOWS AND MEMBERS.

THE thirtieth annual meeting of Fellows and Members of the Royal College of Surgeons of England was held at the College, Lincoln's Inn-fields, W.C., on Nov. 19th. Sir W. WATSON CHEYNE, the President, took the chair, and was supported by Sir Frederic Eve, senior Vice-President, Sir Rickman Godlee, the late President, and 4 other members of the Council. There were also present 6 other Fellows and 41 Members.

The PRESIDENT placed before the meeting the annual report of the Council for the year ending August 1st, 1914, which was reviewed in THE LANCET of Oct. 31st, and stated that copies had been circulated to 951 Fellows and 2629 Members. He briefly indicated some of the main features in the report, and answered certain questions put to him by Dr. Sidney C. Lawrence, honorary secretary of the Society of Members of the Royal College of Surgeons of England.

Sir VICTOR HORSLEY then moved the following resolution standing in his name:—

> That this thirtieth annual meeting of Fellows and Members again affirms the desirability of admitting Members to direct representation on the Council of the College, which as now constituted only represents those Members who also hold the Fellowship, and that it does so in order that the constitution of the Council of the Royal College of Surgeons of England shall be in keeping with modern ideas of true representation.

Sir Victor Horsley blamed the Council for its contemptuous indifference to the repeated demand for representation by Members expressed at previous annual meetings, and criticised generally the policy and attitude of the governing body of the College.

Dr. GEORGE JONES, barrister-at law, who seconded the motion in a persuasive speech, urged the Council to look ahead and make friends now with the large body of Members, so that it might have behind it their support in dealing with the difficult questions which the future held in store. He referred in particular to the growing competition by provincial universities, and concluded by advising the Members to make their watchwords in the struggle for regaining their right of representation, "educate, agitate, organise."

Among those who also spoke in favour of the resolution were Mr. W. J. MIDELTON, who deplored the breach which he said existed between Fellows and Members of the College; Mr. J. BRINDLEY-JAMES, who offered a hearty personal welcome to the new President; Dr. SIDNEY LAWRENCE, who referred to the satisfactory progress made during the past year by the Society of Members; and Mr. J. G. FITZGERALD.

After Sir VICTOR HORSLEY had briefly replied to the discussion, the resolution was put to the meeting and declared carried *nemine contradicente*, and the proceedings closed with a vote of thanks to the President, carried with acclamation.

ASYLUM REPORTS.

Hereford County and City Lunatic Asylum (Annual Report for the Year 1913).—The total number of patients under treatment during the year was 566, the average daily number being 502. There were 58 direct admissions. The chief causative factor was alcohol in 7 cases, syphilis in 6, and insane heredity in 6. There was no case of general paralysis. The number of discharges was 25, with a recovery percentage of 35·4 on the total admissions. Mr. C. S. Morrison, the medical superintendent, remarks that many of the patients under treatment during the year would undoubtedly have derived benefit from open-air treatment on verandahs, if such conveniences had been available. The deaths numbered 23, the mortality based on the average daily number resident being 4·6 per cent., as against 8·7 last year. Pulmonary tuberculosis was responsible for 5 deaths, and Mr. Morrison states that tuberculous disease is much too prevalent, and that provision of recognised means for treatment and to reduce the risks of infection should not be long postponed. He also notes the rise in the weekly cost from 8*s.* 9*d.* per head in 1909 to 10*s.* 6*d.* in 1913. This is due to many factors which influence the expenditure in public institutions. The general sense of the community is directed towards levelling up institutions to a standard giving larger benefits to employees, and better differentiated care to those deriving advantage from the provision of such institutions. The increasing cost of necessaries and the advance in wages add their quota annually to the general rise.

Baldovan Institution (near Dundee) for the Treatment and Education of the Feeble-minded (Annual Report for the Year 1913).—The number of children who passed through the institution during the year was 240. There were 42 admissions and 15 discharges. The deaths numbered 17. The causes of death were in 2 instances epilepsy, in 2 tuberculous disease, in 2 pneumonia, in 1 asthenia, and in 1 scarlet fever and epilepsy. Of the 208 children resident, 82 attended school and received there teaching fitted for their several requirements. A new departure has been made which will permit of some 14 boys working at joinery. Plans have been made during the last few years for the removal of the more educable children from among the more degenerate. With this end in view alterations and rearrangements of the buildings have been carried out which give increased accommodation and make supervision easier. It is now possible to effect a complete separation between those who can only be nursed and those who are capable of being taught.

THE Chelsea Hospital for Women has received from the executors of the will of the late Mr. Thomas Stephen Whitaker the sum of £2000 towards the rebuilding of the hospital.

DORSET MEMORIAL TO THE LATE KING.—A meeting was held at Dorchester recently in connexion with the Dorset King Edward Memorial Fund, under the presidency of Lord Ilchester. The sum of £1610 has been raised, and it was decided to invest this and divide the interest between the Dorset County Home for Nurses and the Dorset County Nursing Association.

THE VENICE MEDICAL POST-GRADUATE COURSE.—The Medical Association of Venice has announced the suspension of the post-graduate course usually held in the month of November. The grounds given are the uncertain conditions in which the medical profession finds itself at present owing to the political situation, and the hope is expressed that it may be possible to hold the course next spring.

ROYAL SUSSEX COUNTY HOSPITAL.—Additional open-air balconies have been added at the Royal Sussex County Hospital at Brighton, the latest additions to the septic wards of the York block being erected by the generosity of Major-General Marsland. The balconies are on two floors, the upper one being used for female and the lower for male patients. The cost of erection was over £600. The balconies were formally opened on Nov. 11th, Dr. W. Furner, on behalf of the medical staff, expressing the deep appreciation of the generous gift.

EAST SUSSEX AND THE MENTALLY DEFECTIVE.—The committee dealing with the mentally defective in East Sussex has presented a scheme to the county council for providing an institution for women and girls, and boys under 12, at an initial outlay of £4550. Mainly on account of the growing expenditure in other directions and the war, the scheme was strongly opposed and was thrown out by 34 votes to 7. The proposal provided for the reception of 100 patients, whereas the committee at the present time has only six cases, for the placing out of which it is paying 10*s.* 6*d.* a week per head.

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THE LANCET.

LONDON: SATURDAY, NOVEMBER 28, 1914.

The War and the Standard of Medical Education.

THE General Medical Council are sitting this week at their 100th session, and Sir DONALD MACALISTER, in referring to the fact in his presidential address, said that if the meeting had been held in different historical circumstances he might have been tempted to improve the occasion by offering some reflections on the past history of the Council, but that he would refrain because the new history that was in the making was too urgent to leave room for indulgence in such retrospect. The rest of his interesting address was largely occupied in demonstrating the active part which the Council had taken in meeting the national emergencies that have arisen, and that will arise, in connexion with the civil and military medical service during the war—emergencies that must affect the medical profession deeply, as they have a direct bearing upon its numerical strength, as they may prejudice its ordinary work as guardians of the health of the population at large, and as, if care be not taken, they may influence for the worse the standards of scientific education.

Sir DONALD MACALISTER dealt with the last of these points first, and alluded to communications which had been received by the Council from various professional authorities inquiring as to the propriety of modifying or suspending some of the existing regulations in the case of students whose regular course of study for a medical qualification might be interrupted by reason of military service. As it was known that some of the licensing bodies proposed to hold special examinations to meet the case of candidates who had completed the curriculum and were desirous of offering themselves without delay for medical military service, it is obvious that the Council was invited to deal here with a situation which might imply some lowering of the standard of proficiency among qualified men, the maintenance of which is one of the great statutory duties of the Council. The Council met the situation with firmness and discretion, and with what we may describe as a military grasp of the situation, refusing to make everything easy for everybody because the country was at war. Exactly as the military authorities will not admit to the terrible responsibility of meeting the enemy in the field, men who have not undergone adequate training for the task, so the General Medical Council set its face from the first against any lowering of the tests for admission to the roll of qualified men, lest the care of the soldier in his sore need, or of the civil population, should fall into insufficiently instructed hands. While recognising that there was a very distinct call, the call of the national need, for a number of young qualified medical men, the Council has insisted also on the paramount necessity in the public interest of maintaining unimpaired the due standard of efficiency required of all who seek enrolment upon the Medical Register with the status and privileges which follow thereon. The Council formulated recommendations as a guide to the various licensing bodies with regard to modifications of the curriculum, so that the course of training might be speeded up, and these bodies have one and all given effect to the views of the Council by regulations of their own.

With regard to the number of medical men who have offered themselves for service under the Crown either in this country or with the Expeditionary Forces, no certain figure is available, but it is known that the number is a very large one, and that there are a great many medical men whose offers of service have not as yet been accepted, the difficulty being to allot them exactly in places where their assistance is most required. We all of us hear both sides of this matter, and know that the military authorities on the one hand are seeking particular medical officers to be employed in one direction, while medical men hoping to serve their country in other than these capacities have been disappointed, but this situation is, we believe, gradually disappearing. A difficulty has also arisen with regard to those medical men who are with the colours. The depletion of the staffs of the general hospitals of the country all over the kingdom has been marked owing to the mobilisation of the Territorial Forces, while the dislocation of private practice following upon the same cause remains grave; indeed, if the public health of the country just now were not good the situation would be one of considerable anxiety. The subject is briefly touched upon by Sir DONALD MACALISTER in his address, and has several times been alluded to in these columns, where we have announced our belief that this position, being now appreciated by the War Office, will be met by simpler methods of adjustment. The efforts of Sir DONALD MACALISTER in this direction have been strenuous, and now that the first pressure of military and general organisation has been met they should bear fruit. In the meantime, although it is many of our own readers whom we are praising to their faces, we think it right to call attention to the fine and generous spirit towards each other which medical men all over the country have shown in dealing with the problems arising out of the compulsory desertion of practices. On all sides we find a desire among the practitioners remaining behind to maintain and protect the interests of their absent colleagues.

Enteric Fever Prevention in Civil and Military Life.

IT has been said, to emphasise a sanitary moral, that it is fortunate for this country that neither bacillus carriers nor antityphoid vaccine were discovered earlier than they were. Enteric fever prevalence in the United Kingdom has been steadily falling for the last 50 years, and is now only about an eighth of what it was in the "seventies" of the last century. This reduction has been partly secured by greater attention to prophylaxis in respect of the sick persons themselves, but is chiefly to be attributed to wider measures of "sanitation." These measures are not directed against known enteric fever infection as such, but aim at the removal of excremental contamination of water, food, and soil, however this may occur, regardless of the question whether the contamination is from healthy persons, from enteric fever cases, or from carriers of the typhoid bacillus. Dangerous water-supplies, cesspools, privies, unpaved yards, sewage-polluted shell-fish and foods, and a host of other matters coming within the purview of general sanitation, have been dealt with principally on account of their proved association with enteric fever, to the great benefit of the community in many directions besides the diminution effected in this one disease. On the other hand, the "new" methods against enteric fever adopted in other countries which are less advanced in general sanitation are more specific and depend primarily on bacteriological methods enabling the individual enteric fever case or typhoid carrier to be detected and controlled. Such methods have been applied abroad with great thoroughness and success, the most conspicuous example being the great "antityphoid" campaign conducted in recent years in Alsace, but we have no hesitation in regarding our own as the better way.

At home the mischief done by the individual carrier is occasionally serious and perhaps enough to warrant restrictive measures being taken in exceptional cases against particular individuals; but such action under normal conditions of civil life should be only incidental and subsidiary to the general methods which have been so fully justified by experience. In camps and armies on service, however (as Sir WILLIAM OSLER insisted in his recent address to the Society of Tropical Medicine), the several methods of prophylaxis assume different relative values, particularly when the country in military occupation is one in which enteric fever is normally endemic. The conditions of active service in which disastrous results might follow from infection by incipient cases of enteric fever or by the presence of carriers among the troops can easily be apprehended. Medical opinion is thus practically unanimous that every soldier on service ought to obtain the effective protection which antityphoid inoculation can give, and supports any precautions which are practically feasible for the elimination of the carrier from our armies. It should, however, go without saying that reliance on antityphoid inoculation and other new measures ought not to involve any slackening in the efforts to secure good general sanitation for the troops. Apart from the consideration that the duration of the protection conferred by the inoculation is relatively transient, the general measures of good military hygiene not only give protection against enteric fever, but also have a much wider influence on the health of the soldier. In our home camps and billets there is no essential reason, if proper care be taken, why troops should be any more exposed to the results of excremental contamination of water, food, or soil than was the case when the same men were in civil life. Even if every soldier were inoculated against typhoid infection, sanitary organisation would still need to be encouraged to the utmost in our new armies, and education in personal hygiene and methods of cleanliness must continue to be regarded as among the most important parts of the military training of our troops.

Annotations.

"Ne quid nimis."

THE MEDICAL INSURANCE AGENCY.

AN interim report on the progress of the Medical Insurance Agency for the nine months ending Sept. 30th was presented by the chairman, Dr. G. E. Haslip, to a meeting of the committee on Nov. 5th. The Agency had, he stated, not escaped the effects of the war, the receipts for new life and motor-car business especially having been adversely affected, although the commission on life business effected antecedent to the war had very nearly doubled during the period under review. On the other hand, a substantial business in war risks had been negotiated, and had helped to make good any shrinkage in other classes of business. The surplus shown by the auditor's figures would, the chairman said, justify the distribution to medical charities of the sum of 300 guineas for the current year, and it was resolved accordingly to make contributions to the Royal Medical Benevolent Fund (100 guineas), the Royal Medical Benevolent Fund Guild (50 guineas), Epsom College Benevolent Fund (75 guineas), the Royal Medical Benevolent Fund Society of Ireland (25 guineas), THE LANCET Editor's Fund (15 guineas), the Royal St. Anne's School (10 guineas), and, provisionally, to the fund for distressed Belgian medical men (25 guineas). The subscription to the Royal St. Anne's School was made with the specific object of assisting daughters of medical men in obtaining election to that school. Altogether the Agency since it was instituted has voted a sum of £1075 to medical charities, and, in addition, it has returned to insurers a sum of over £3000. The Agency is prepared to undertake to arrange policies for insurances of all kinds, and from the experience already gained it is able to advise medical men as to the best form of policies, and as to their satisfactory adjustment to meet the

varying needs of individuals. Further particulars can be obtained on application to the agent and secretary, Medical Insurance Agency, care of British Medical Association, 429, Strand, London, W.C. The committee of management consists of Dr. G. E. Haslip (chairman), Dr. Alfred Cox, Mr. Guy Elliston, Sir Frederick Hewitt, M.V.O., Dr. H. A. Latimer, Dr. J. A. Macdonald, Dr. D. J. Mackintosh, M.V.O., Mr. H. Betham Robinson, M.S., Dr. S. Squire Sprigge, and Dr. Dawson Williams.

MYELOID SARCOMA.

IN another part of this issue of THE LANCET is published an important paper on myeloid sarcoma by Dr. Matthew J. Stewart, of Leeds. This remarkable new growth has received no small degree of attention during the last few years, and it has formed one of the main topics in a discussion on sarcoma at the Royal Society of Medicine.[1] The point in which this variety of tumour differs from all other forms of sarcoma is its very low degree of malignancy. All other varieties of sarcoma are very malignant, and especially malignant are the sarcomata of bone; the myeloid sarcomata have hardly any malignancy—in fact, it is not going too far to say that they are not malignant at all. They never affect the neighbouring lymphatic glands, yet this may also be said of some other kinds of sarcoma. More important still is the fact that the myeloid sarcoma never in any circumstances gives rise to secondary growths in other parts of the body, though with ordinary sarcomata of bone death is nearly always due to the formation of secondary growths. Indeed, it is only from the fact that the myeloid sarcoma has a tendency to recur locally that it can be said to be malignant at all, but this local recurrence means nothing more than that it has not been completely removed. It is certainly not encapsuled, and there is no sharp dividing line between the growth and the surrounding tissues. Yet in numberless instances recurrence has not occurred after the local removal of a myeloid sarcoma, and even when a recurrence has taken place a second attempt at removal has generally succeeded. Clinically, therefore, the myeloid sarcomata behave very differently from the other new growths with which they are usually classed; they are for all practical purposes non-malignant tumours. This difference has been so keenly felt by some pathologists that they have preferred to call the myeloid sarcoma by a name which would not suggest any relation to the sarcomata, and so the word myeloma has been widely employed. With the name of myeloma, however, Dr. Stewart cannot agree. He acknowledges that clinically these growths are different—that they do not act like malignant growths, but he feels compelled to class them as embryonic connective tissue growths, and therefore he says that they must be sarcomata, and not unaptly he points out an analogy in the position of rodent ulcer in the carcinomata; it is certainly a carcinoma, but clinically its malignancy is very slight. The claim that a myeloma is a sarcoma depends then on its histological structure, and not on its clinical characters, and it is to the histology of these growths that Dr. Stewart's paper is chiefly devoted. While pointing out the resemblances between the myeloma and the other sarcomata, he shows that it is always possible by the microscope to distinguish easily between the myeloma and the malignant giant-celled sarcoma, which at the first glance resembles it. He shows that in the myeloid sarcoma the nuclei are numerous, uniform, small, and without mitoses; while in the malignant giant-cell sarcoma the nuclei are few, irregular, and large, and mitotic figures are common. On the certainty of the value of this histological difference depends the importance of this study; for on the microscopic characters depends the treatment. In a definite myeloid sarcoma the surgeon may with confidence practise free local removal; and the results of the examination of the cases which Dr. Stewart has studied and in which local removal has been performed show that of 40 cases traced 38 are alive at the present time, and that in one only of these is there local recurrence. Dr. Stewart's paper is a careful study of an important subject, and it will afford valuable support to the growing practice of the local treatment of myeloid sarcomata.

[1] THE LANCET, Nov. 16th (p. 1362) and 23rd (p. 1435), 1912.

"NOSTALGIE MILITAIRE."

NOSTALGIA as a specific disease especially afflicting recruits has never figured in English text-books of medicine or mental disease, but our French allies had up to about the year 1877 issued a whole literature on the subject. Switzerland, as we are informed by Jean Jacques Rousseau, was the original home of what was long regarded as a dangerous malady. The Swiss, he asserts, were forbidden to listen to the music of the Ranz-des-Vaches if it happened to be played to them when on the march, since the monotonous strains, associated in their minds with home and the mountains, led to desertions, sickness, and death. Johannes Hofer, a Mulhouse physician, is perhaps the original authority on *mal du pays*, which he calls "pothopatridalgia." His book was published in Basle in 1688. He speaks of a specific disease, tells many stories of its extraordinarily fatal results, and transcribes in quaint notation the music of the Ranz-des-Vaches, or Kuh-Reihen, to the sound of which he directly traces his "pothopatridalgia." As years pass the picturesque element in home sickness becomes modified, and in 1837 we find the subject treated at great length and with a complete appearance of scientific justice by Paulinier in a Montpellier thesis. He describes the pallor, taciturnity, absolute dejection, loss of appetite, and so forth, which attack the recruit suffering from home sickness, and adds the curious observation that in the great wars of the French Republic the illness was unknown owing to the enthusiasm of the soldiers for France, every inch of which had become home in their regard. Later, when the Napoleonic wars had sapped the vitality of the nation, the condition of *mal du pays* became almost epidemic among the boy recruits of 1812 and the following years. There is little to choose between Paulinier's views and those of many of his successors. They all describe much the same set of symptoms. Writing as lately as February, 1863, an American army surgeon, De Witt C. Peters, speaks of the incidence of this form of melancholia among young recruits drawn from the Eastern States of the Union and sent to fight in the, to them, enervating climate of the south. "The hospitals of New Orleans," he says, "during the past summer were filled with such cases. ..... The majority of them were young men from the Eastern States, whose love of home and kindred is a characteristic trait." His definition of the symptoms tallies with that of his predecessors.

"The symptoms produced by this aberration of mind are, first, great mental dejection, loss of appetite, indifference to external influences, irregular action of the bowels, and slight hectic fever. As the disease progresses it is attended by hysterical weeping, a dull pain in the head, throbbing of the temporal arteries, anxious expression of the face, watchfulness, and increased fever and wasting. Among young prisoners of war it is the worst complication to be encountered, as the writer can truthfully affirm." We can only trust that as our allies and ourselves are fighting with high hopes in an inspiring cause such a form of mental depression is unknown or rare among them. The Italians speak familiarly of nostalgia as a disease of recruits.

DUODENAL ULCER IN INFANCY.

DUODENAL ulcer has rarely been observed in infancy. An American writer, Holt, recently could find recorded only 91 cases in the first year of life, to which he added four cases from a total of 1800 necropsies at the Babies' Hospital, New York. In the *American Journal of the Medical Sciences* for November Dr. B. S. Veeder has published an important paper on the subject based on the experience of the Department of Pediatrics, Washington University Medical School, and the St. Louis Children's Hospital. His statistics indicate a greater frequency of duodenal ulcer in children than those given above. During the last two years five cases were observed in one hospital in St. Louis. From the pathological standpoint the condition was found four times in 62 necropsies on infants under one year. From the clinical standpoint it was diagnosed four times among 586 admissions to the infant ward and 2000 infants under 1 year treated at the out-patients' department. The following is an example. A female, aged 1 month, was admitted on March 20th, 1912. She was born at term, was breast-fed for two weeks, and then fed on condensed milk, 1 in 16. This was well taken for two weeks, but then was refused, and the stools became loose and watery. Two hours before admission she was put on barley water, which was refused. On the day of admission she passed four loose mucous stools and vomited once. Milk diluted with three parts of water and protein milk were tried without benefit. On March 30th black granular material was vomited, and soon afterwards a tarry stool was passed. The temperature remained continuously subnormal, but there were no signs of collapse. Duodenal ulcer was diagnosed. Two days later more tarry stools were passed. She gradually became weaker and died on April 5th. The necropsy showed an irregular ulcer measuring 7·5 by 5 mm. on the posterior wall of the duodenum just beyond the pylorus. The margins were elevated and undermined. Near this ulcer was another 3 mm. in diameter. The ulcers extended through the mucosa and submucosa, and their bases were covered with greyish slough. In 4 out of the 5 cases there was a fairly typical picture of duodenal ulcer from which the diagnosis could be made, and it was confirmed by necropsy in 3 which were fatal. All the infants were under 6 months and were artificially fed and marasmic, but 3 had received a fair start on breast feeding. Vomiting occurred in all the cases and was a marked feature in 3. Melæna was present in 4 cases. In the absence of the subjective symptoms, which are so important in the adult, the diagnosis depends upon the few objective symptoms given above. Gross hæmorrhage from the bowel is the only definite symptom pointing to duodenal ulcer; when absent the diagnosis cannot be made. Acute ulcerative conditions of the lower intestine must be excluded, but these are usually associated with acute nutritional disturbances. The prognosis is unfavourable because of the age of the patients and the associated chronic malnutrition. As to the treatment, the only indication is to place the infant under the best nutritional conditions, which means breast feeding. The pathology is obscure. The ulcers may be single or multiple. They vary from small areas of superficial necrosis to punched-out ulcers involving all the intestinal coats, and in a few cases causing perforation. They are found between the pylorus and the ampulla of Vater, most commonly just beyond the pyloric ring. In practically all the cases they were on the posterior wall. This seems to be due to the fact that such position is the most dependent part of the duodenum when the infant is on its back, and therefore the place where any substance acting on the mucosa would be most likely to produce an effect. The ulceration appears to be in some way due to intestinal decomposition. This is most common in the early months of infancy, and most of the subjects were in the first five months of infancy.

NON-TUBERCULOUS LESIONS OF THE PULMONARY APEX.

As comparatively little attention has been given to disease of the apex of the lung which cannot be attributed to tubercle, we welcome a communication on this subject made by Dr. L. Devoto to the Twenty-fourth Italian Medical Congress at Genoa last month and reproduced in a recent number of *Il Morgagni*. The author first draws attention to cases which simulate a morbid condition of the apices which really does not exist. For example, in young children a limited and persistent unilateral dulness is often found, leading to the suspicion of tuberculosis of the apex or tracheo-bronchial glands. Such dulness, however, is due to changes in the bony thorax, and particularly to slight deviations of the vertebral column, or to abnormal length of the apophysis of the cervical vertebræ. Moreover, it is not unusual to meet with patients who for some months present a subfebrile temperature of uncertain origin. With the idea of tubercle present it requires care and judgment to avoid an error in diagnosis. By violent coughing and forced respiration it is easy to provoke the formation of a râle, especially if the examination be made in the morning after the patient has remained for a considerable time in a supine posture in bed. It is, moreover, stated that in the course of chronic appendicitis moist sounds may be heard at the apices, which disappear when the local process becomes more marked. Then there are the chlorotic girls, with slight dulness at one apex, a harsh vesicular murmur, prolonged expiration, loss of flesh, and debility, who are sent to the sanatorium only to be dismissed after a short time because the physical signs at the apex have no relation with tubercle but with the asthenia of chlorosis. Having cleared the ground of what might seem to indicate, owing to errors of observation or interpretation, a diseased condition of the apices, the author enters

upon apical pathology properly so-called. Among primary conditions of the apex which are not tuberculous he draws attention to apical pleurisy, either dry or with serous or purulent effusion, simple bronchial catarrh, bronchiolo-alveolitis and peribronchitis from inhalation of dust, broncho-pulmonary foci occurring as sequelæ of influenza, whooping-cough, diphtheria or typhoid fever, pneumonomycosis, new growths and gummata, abscess, and bronchial concretions. Passing on to secondary affections of the apex, the author notices that physical signs of collapse at the right apex are met with in persons suffering from diseases of the upper air-passages, and that in aged people with torpid circulation a diminution of resonance and moist sounds are found at one or both apices. Similar conditions, the result of toxæmia or weakened circulation, are found in uræmia, diabetes, polysarcia, and in the course of severe nephritis, in the induration following an apical pneumonia and pulmonary infarcts. In the majority of cases non-tuberculous lesions of the apex can be clearly recognised. If by modern methods of investigation the non-tuberculous origin and nature of an apical lesion cannot be demonstrated, a tuberculous process is to be suspected, even if search for the bacillus and other special investigations give negative results. But this contingency of having to admit the tuberculous nature of a lesion by a process of exclusion is so rare that a diagnosis of tubercle arrived at by this means will be justified by the consideration that, within certain limits, diagnosis in excess is less prejudicial than diagnosis in default.

THE BELGIAN DOCTORS' AND PHARMACISTS' RELIEF FUND.

A Meeting in London.

A meeting of the committee to organise a Relief Fund for Belgian Doctors and Pharmacists was held at the offices of the British Medical Association on Tuesday afternoon, Nov. 24th. The meeting arose out of invitations sent by the previously existing provisional committee, in order that it might transform itself at the first opportunity into a really representative body, which should give its influence to the movement to relieve in some way the misery of the Belgian doctors and pharmacists. The following were present:—

*Sir Rickman Godlee, Bart., in the Chair.
Sir Donald MacAlister, K.C.B., President of the General Medical Council.
Sir Henry Morris, Bart., Joint Treasurer of the General Medical Council.
*Sir Thomas Barlow, Bart., President of the Royal College of Physicians of London.
*Sir W. Watson Cheyne, Bart., President of the Royal College of Surgeons of England.
*Mr. Meredith Townsend, Master of the Apothecaries' Society of London.
Sir John W. Moore, late President of the Royal College of Physicians of Ireland.
Mr. James Hodsdon, President of the Royal College of Surgeons of Edinburgh.
Sir Lambert H. Ormsby, late President of the Royal College of Surgeons in Ireland.
*Dr. Frederick Taylor, President of the Royal Society of Medicine.
*Mr. W. J. Uglow Woolcock, Secretary and Registrar of the Pharmaceutical Society.
Sir Clifford Allbutt, K.C.B., Professor of Medicine in the University of Cambridge.
Sir Thomas Fraser, Professor of Materia Medica and Clinical Medicine in the University of Edinburgh.
Sir Charles Ball, Bart., Professor of Surgery in the University of Dublin.
Professor Robert Saundby, Professor of Medicine in the University of Birmingham.
Professor William Russell, Professor of Clinical Medicine in the University of Edinburgh.
Sir W. Whitla, Professor of Materia Medica and Therapeutics, Queen's University, Belfast.
Professor John Yule Mackay, Principal of, and Professor of Anatomy in, University College, Dundee.
Professor G. Elliot Smith, Professor of Anatomy in the Victoria University of Manchester.
*Dr. F. M. Sandwith, Gresham Professor of Physic.
Dr. J. C. McVail, Crown Nominee on the General Medical Council.
Professor Arthur Thomson, Professor of Anatomy in the University of Oxford.
*Dr. Herbert Spencer, Obstetric Physician to University College Hospital, London.
*Sir Frederic Eve, Senior Surgeon to the London Hospital.
Dr. Richard Caton, Consulting Physician to the Liverpool Royal Infirmary.
Dr. Norman Walker, Treasurer of the Royal College of Physicians of Edinburgh.
Mr. H. A. Latimer, *Mr. T. Jenner Verrall, Dr. J. A. Macdonald, Direct Representatives for England on the General Medical Council.
*Dr. Alfred Cox, Medical Secretary of the British Medical Association.
*Dr. Dawson Williams, Editor of the "British Medical Journal."
*Dr. H. A. Des Vœux (Honorary Treasurer).
*Dr. S. Squire Sprigge (Honorary Secretary), Editor of "The Lancet."

Those marked with an asterisk were members of the provisional committee, and were chosen by the meeting to form the executive committee.

The appended letter was approved for distribution to the press as an open appeal, and sufficiently explains both what has been done and what it is hoped to do. Hearty coöperation was promised both from Scotland and Ireland, and the committee has been strongly reinforced from both these divisions of the United Kingdom, and also by prominent members of the pharmaceutical profession.

Irish Support.

A Belgian medical relief fund was started in Dublin some days ago. A letter from Professor Jacobs, of Brussels, having been received by the Presidents of the Irish Royal Colleges, asking for assistance for distressed Belgian medical men and pharmacists, the Presidents, after consultation with their respective Colleges, summoned a meeting of the medical profession of Dublin. The meeting was held on Nov. 20th in the Royal College of Physicians of Ireland, the President in the chair. The first resolution, moved by Mr. F. Conway Dwyer, President of the Royal College of Surgeons in Ireland, and seconded by Dr. James Little, senior Fellow of the Royal College of Physicians of Ireland, expressed sympathy with the Belgian medical profession, and authorised the opening of a fund for their relief. A further resolution, establishing a

committee for the purpose of carrying the first resolution into effect, was proposed by Dr. Joseph O'Carroll, Vice-President of the Royal College of Physicians, and seconded by Mr. William Taylor, Vice-President of the Royal College of Surgeons. Promises and subscriptions amounting to nearly £300 were received after the meeting.

THE OPEN APPEAL.

SIR,—A provisional committee was formed recently to assist in any way that was found possible Belgian doctors and pharmacists, both those remaining in Belgium and those who are refugees in this country, who are involved in utter distress. A statement received from Professor Jacobs, of Brussels University, acting as the spokesman of a Belgian committee with similar aims, has already been published,[1] and certain measures were taken immediately by the provisional committee, who, in announcing what had been done, recognised that the scope for further effort was enormous, and that the provisional committee ought to be reinforced forthwith by representatives of medicine and pharmacy in England, Ireland, Scotland, and Wales.

As a result a strong committee has been formally constituted. It includes representatives of the medical faculties of the Universities, of the great medical and pharmaceutical Corporations, of the General Medical Council, and of the British Medical Association, and the activities of that committee will be limited only by the amount of money and material placed at its disposal, and by the exigencies of the political situation.

The committee is aware that great efforts are being made in numerous directions for the assistance of the Belgian refugees and Belgian people generally, but feels that it will be the pleasure and is, indeed, the duty of medical men and pharmacists to help the medical and pharmaceutical professions of Belgium. The movement is one undertaken by doctors and pharmacists on behalf of the Belgian doctors and pharmacists.

The committee has placed before itself a double programme: (1) to distribute what help it can at the present moment; and (2) to collect funds for the assistance of Belgian medical men and pharmacists in the future.

(1) As a tentative measure 50 packets of drugs and dressings are under order for despatch to Belgium. This will test the precautions which are being taken to ensure that the goods despatched will reach their destination and that they will be used by those only for whom they are intended—that is, the Belgian physicians and surgeons. In the second direction it is hoped to coöperate usefully with the general measures being adopted to succour Belgian doctors and pharmacists in this country.

(2) It is clear that no definite steps can be taken as yet for the rehabilitation of the medical and pharmaceutical professions in Belgium. A considerable sum of money will be required to replace ruined laboratories and pharmacies and to re-establish the ordinary course of medical administration, but nothing can be done now. It is intended, however, to communicate with the United States of America and other neutral countries, as well as with the Allied Nations, so that an international movement may be set up to reinstate the two professions.

[1] THE LANCET, Nov. 21st, 1914, p. 1220.

But the committee feels that the uncertainty which exists with regard to the fulfilment of the second part of the programme should not prevent immediate and strenuous action in the spheres open to its work. The result of an experimental consignment to Belgium of medical stores will be known shortly, and if, as there is every reason to anticipate, the result is good, such consignments will be made regularly in accordance with the amount of money forthcoming. The committee has evidence that at least 2000 such packets as have already been arranged for are sorely needed, while each packet costs £5, the price being only kept down to this figure by the willingness of Messrs. Burroughs Wellcome and Co. to forego all profit.

At the same time the committee is aware of grave distress among the refugee medical men and pharmacists, and it feels that the organisations for succouring the great mass of Belgian refugees ought to be especially supported in anything that can be done for the members of the two professions.

It appeals therefore for immediate assistance, and appends a list of the first subscriptions actually received. Numerous promises of help have been made, and the committee is much indebted to the facilities which have been afforded to it by the British Medical Association, at whose house (429, Strand) the meetings have been and will in future be held.—We are, Sir, yours faithfully,

RICKMAN J. GODLEE (*Chairman*).

H. A. DES VŒUX (*Honorary Treasurer*),
14, Buckingham Gate, London, S.W.

S. SQUIRE SPRIGGE (*Honorary Secretary*),
"The Lancet" Office, 423, Strand, W.C.

	£	s.	d.
Sir Lauder Brunton	50	0	0
Mr. J. P. Ellerington (*La Pharmacie Française*)	20	0	0
Dr. William Shears	2	2	0
Miss Lace	1	1	0
Mr. J. Hedley Marsh	10	10	0
Mr. J. W. Bell ...	1	1	0
Mr. R. R. James ...	1	1	0
Mr. M. S. Harford	2	2	0
Dr. N. R. Rawson	1	1	0
Dr. A. E. Porter ...	5	5	0
Mr. J. S. McDonagh	2	2	0
Mr. and Mrs. T. Jenner Verrall...	5	0	0
Dr. F. Dittmar ...	1	1	0
Mr. Francis A. Brooks	5	5	0
Dr. C. Lillingston	1	0	0
R. H....	2	2	0
Dr. H. A. Latimer	1	1	0
Mr. James Hamerton	2	2	0
Dr. F. W. S. Stone	0	10	6
Dr. P. S. Abraham	5	5	0
Sir James Affleck	5	0	0
Mr. Harry Martin	5	5	0
Mr. F. Atthill ...	2	2	0
Dr. J. Quinton Bown	6	6	0
Mr. H. Hilton Heffernan	1	1	0
Dr. L. A. Baine ...	5	5	0
Dr. C. A. Wigan ...	1	1	0
Sir Thos. Smith Clouston	5	0	0
Mr. Geo. Oliver ...	3	3	0
Miss Morehead ...	0	10	0
Dr. Gaitskell	1	1	0
Mr. A. E. Fiddian...	5	5	0
Mr. H. E. Seebohm	5	0	0
Dr. W. Jenkins Oliver	10	10	0
Mr. J. Henry Stormont	5	5	0
Mr. G. S. Grierson	2	2	0
Dr. A. Charpentier	2	2	0
Dr. W. J. Dewar ...	3	3	0
Mr. G. J. Auburn...	5	0	0
Miss Gartside ...	5	0	0
Dr. H. R. Spencer	25	0	0
Dr. J. Kidd	5	0	0
Dr. J. S. Clarke ...	5	0	0
Dr. K. R. Hay ...	2	2	0
Messrs. Burroughs Wellcome and Co.	105	0	0
Colonel H. W. Joynt, A.M.S. ...	1	1	0
Dr. George Bruce	1	1	0
Mr. Herbert Page	3	3	0
Dr. T. H. Livingstone	5	0	0
Professor R. Morison...	25	0	0
Mr. E. Kershaw ...	5	0	0
Dr. Jacob...	2	2	0
Dr. J. Thomarson...	1	1	0
Dr. G. Southwell Sander	5	0	0
Dr. C. R. A. Sutton	1	1	0
Dr. H. P. Ferraby	10	0	0
Miss M. F. H. Ivens	5	5	0
Sir Seymour Sharkey	5	5	0
Dr. H. Mallins ...	2	2	0
Dr. James Lees ...	0	5	0
Mr. H. W. Cunningham	2	2	0
Dr. James Hudson	5	5	0
Captain Hubert Armstrong, R.A.M.C.	3	3	0
Dr. William Pyle (promises further help)	3	3	0
Dr. A. A. Turner ...	10	10	0
Dr. Percy Kidd ...	5	0	0
Mr. C. J. Lewis ...	1	1	0
Mr. H. D. Adcock	1	1	0
"The Lancet" ...	25	0	0

"GAS GANGRENE."

THE following report, which we have received for publication from the Secretary of the War Office, has been jointly drawn up by Sir Anthony A. Bowlby, C.M.G., Colonel, A.M.S., Consulting Surgeon to the Forces Overseas, and Dr. J. Sydney Rowlands. The report is written from the Field Laboratory General Headquarters and dated Nov. 11th, 1914. It is mainly the result of work done at the clearing hospitals at the front, to which patients are taken within a few hours of being wounded. A copy of the report has been sent to the Director of Medical Services, but many of the conclusions and practical recommendations have already been conveyed to the hospitals verbally or by official communications, and attempts are being made at the Lister Institute in London to provide a suitable antitoxin.

Report on Gas Gangrene.

It seems advisable to briefly record the conclusions at which we have so far arrived on the spreading gangrene which has occurred amongst the wounded of all the armies now in France.

One of us (S.R.) has examined the condition bacteriologically, and this examination was carried out in the "Mobile Field Laboratory." In a typical case affecting the hand a bacillus was found which was isolated for examination. A culture of this, when inoculated into a guinea-pig, caused its death in 18 hours. Post mortem there was found a gangrenous cellulitis from which the inoculated organism was recovered. A second guinea-pig inoculated from this culture was sent to the Lister Institute. It arrived safely and died within a few hours of its arrival, thus affording abundance of fresh material for a more detailed examination than was possible under field conditions. An examination of the culture was meanwhile made in the field laboratory and the conclusion arrived at was that it was probably the specific organism of malignant œdema. Further examination made at the Lister Institute by Dr. C. J. Martin, F.R.S., and Dr. Arkwright inclined these observers to the view that the organism in question was identical with one that for some time was confused with that of malignant œdema, known as the bacillus of Ghon and Sach. This organism was originally obtained from a case of gangrene in the human subject. There are some ten different organisms that have been isolated from cases of gas gangrene in man, all of which are closely allied and have the common characteristic of being anaerobic spore-bearers. From other cases in the clearing hospitals at the front several more organisms of this group have been isolated and have been sent to the Lister Institute for confirmatory diagnosis.

A sample of earth from a trench was also examined. The inoculation of a few drops of water, in which this earth had been shaken up, into a guinea-pig killed the animal in 18 hours. Post mortem a similar gangrenous cellulitis was found. The animal was also found, like the guinea-pig inoculated from the gangrenous hand culture, to be infected throughout with a spore-bearing anaerobic organism belonging to the same group. It is reasonable to conclude, therefore, that the gangrene found amongst our wounded soldiers is directly due to infection introduced at the time of the wound, and this is especially likely to occur if muddy clothing has been carried in by the projectile or if earth has been carried in by the explosion. We are, therefore, of the opinion that the gangrene that occurs amongst the wounded is a "traumatic infection" and dates from the moment of the injury. It is solely due to infection from the soil, and is in no way related to sloughing phagedena, or so-called "hospital gangrene."

Clinical picture of gas gangrene.—In the cases we have seen the gangrene has always occurred in connexion with wounds of the extremities. We have not seen it in the head, neck, thorax, or abdomen.

Nature of projectile.—We have seen it in wounds from rifle, shrapnel, and fragments of shell.

Nature of wound.—We have seen it in both slight and very serious wounds, but a larger proportion of the serious wounds are affected by it, especially when large bones have been shattered and muscles extensively torn and extruded. We have seen it with and without fractures, and in a relatively large number of fractures of the femur.

Period of onset.—It is most noticeable that it always shows itself within the first few days or even hours following the infliction of the injury. In two cases we have seen it well marked within 36 hours, and in several others already extensive on the third and fourth day. Several patients have died of it on the third day following that of the injury, and in other patients it has progressed so far that amputation has been performed on the third day.

Onset.—This is characterised by swelling of the injured part, and the gangrene seems especially liable to occur in connexion with that swelling of a limb which is due to extravasation of blood in the subcutaneous tissues and intermuscular planes. It seems to us that interference with the circulation either by extravasation of blood or by tight bandages has a marked influence. In the early stages the patient complains of severe pain which is perhaps due to tension, the result of the swelling, but in the later stages the affected area becomes completely numbed and insensitive. The edges of the wound are generally ragged and sloughy, and a considerable quantity of blood-stained serum constantly exudes and soaks the dressings. This discharge emits a characteristic and most offensive odour which is so marked as to be almost diagnostic. The skin, if not previously discoloured by extravasated blood, assumes a dark purplish or slate-coloured hue.

In the vicinity of the wound it changes subsequently to a more green colour. The swelling extends coincidently with the change of colour, and a few hours later the skin becomes nearly black, and finally forms a black, leathery slough. Beyond the area of discolouration the limb is swollen with gas and fluid exudation, and an emphysematous crackling can be elicited on pressure with the hand. This may spread to a distance of as much as a foot above and below the actually gangrenous area, and so rapid is the extension of the gangrene that we have seen the whole of the lower extremity completely mortified before the end of the third day after the infliction of the wound.

Condition of patient.—Temperature is not materially affected in many cases, and high fever is rare. A temperature of 99–100° is usual. Respiration is not materially quickened; headache is not complained of. The mind is perfectly clear till near the end. The pulse is not greatly quickened, but rapidly loses power, so that several of the patients we have seen have had no perceptible radial pulse. The heart's action is greatly weakened so that its beat is quite difficult to feel.

Vomiting is common and in many cases is frequent. Diarrhœa is rare. Sweating is not generally present, and before death the skin is cold. The tongue is usually covered with a dirty fur, but the mouth is not exceptionally dry. Death appears to be due to cardiac failure, and we have been struck by the extraordinary clearness of the mind of a patient, almost pulseless, and within an hour or two of his death. In the worst cases the gangrene may spread with such rapidity that the whole limb may be cold, of a purple or black colour, immensely swollen, and quite devoid of all sense of touch and power of motion within 36 hours of the onset of the gangrene. The smell of such a limb is overpowering and almost precludes a careful post-mortem examination. If incisions are made before or after death gas and sanious fluid bubble up.

Pus is confined to the edges of the wound, and is very little in proportion to the sanious discharge.

Conclusions.—The practical conclusions we would draw from these observations are as follows:—

1. All tight bandages, and especially those applied at the first field dressing, should be avoided. Shell wounds are so often followed by so much interstitial hæmorrhage that the part swells and the bandage rapidly becomes tighter and interferes with the circulation. Consequently many bandages require to be cut within a few hours of their application.

2. In many cases the tension requires to be relieved by incisions and drainage, and the opportunity should be taken to wash the wounds thoroughly with an antiseptic. Peroxide of hydrogen is one of the best. Great care should be taken to remove portions of clothing, as these contain the infective agent. Shattered fragments of bone and pieces of shell or gravel should be taken out.

3. Amputation may often be successfully performed through tissues made emphysematous by gas but not yet gangrenous.

4. The group of anaerobes causing gangrene are spore-bearers, and spores (especially of this group of anaerobes) are especially difficult to kill by any antiseptic solution or even by boiling. Consequently, in order to sterilise instruments and other things that have been infected other measures are required.

(*a*) Destruction of blankets and clothing soaked by the discharge.

(*b*) Heating in an autoclave at a temperature of 120° Centigrade.

(*c*) Boiling for an hour in a solution of 1/20 carbolic acid or lysol (1 in 10).

It should be remembered that the mud on the clothes of wounded soldiers is almost certainly infected, and care should be exercised to see that the area in which operations or dressing of wounds are performed should be kept free from possible contamination from such a source.

5. Where possible it is advisable to isolate patients under treatment in hospitals, and this is all the more necessary on account of the bad smell which is inseparable from the condition.

(Signed) ANTHONY A. BOWLBY.
SYDNEY ROWLANDS.

Field Laboratory, G.H.Q., Nov. 11th, 1914.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments have been notified:—Deputy Inspector-General of Hospitals: R. F. Bown (retired) to the *Orion*. Fleet-Surgeon: M. H. Knapp to the *Pembroke*, additional, for disposal. Staff-Surgeon: G. D. Bateman to the *Victory*, additional, for the *Caroline*, and on commissioning. Surgeons: C. W. F. Greenhill to the *Columbine*, additional, for Queensferry Sick Quarters; P. B. Wallis to the *Pembroke*, additional, for disposal. Temporary Surgeons: M. H. de J. Harper to the *Pembroke*, additional, for duty in connexion with transport of wounded; J. Pratt to the *Victory*, for R.N. Division at Crystal Palace; and D. K. Adams to the *Vivid*, additional, for disposal.

ROYAL NAVAL RESERVE.

Rolf Creasy has been appointed Surgeon for temporary service in His Majesty's Fleet (dated Nov. 14th).

ROYAL NAVAL VOLUNTEER RESERVE.

Surgeon:—E. F. Murray to the *Victory*, additional, for the *Caroline*, to date Nov. 24th, and on commissioning, undated.

The undermentioned have been entered as Surgeon Probationers for temporary service: E. J. Coombe, A. G. McKee, D. H. Ferris, G. S. Barnett, J. Brooks, T. J. Lane, E. A. Leak, R. T. Stoney, M. R. Wallace, E. W. Drury, T. J. Sumner, G. E. Mullins, D. Heard, and W. P. Elford.

ARMY MEDICAL SERVICE.

William Tindall Lister to be temporary Colonel (dated Nov. 10th).

Lieutenant-Colonel Alfred P. Blenkinsop to be Assistant Director-General (dated Oct. 29th).

ROYAL ARMY MEDICAL CORPS.

Supernumerary Lieutenant-Colonel Charles H. Burtchaell is restored to the establishment (dated Oct. 29th).

William Allan Chapple to be temporary Major (dated Nov. 10th).

Supernumerary Captain George A. D. Harvey is restored to the establishment (dated Nov. 15th).

Percy Sargent to be Temporary Captain (dated Nov. 5th).

The undermentioned to be Temporary Lieutenants:—Dated Oct. 24th: John Charles Anderson. Dated Oct. 28th: Louis Cassidy. Dated Nov. 1st: Daniel McKelvey. Dated Nov. 2nd: Harry Vere White and Sydney Jacob. Dated Nov. 4th: William Fulton Neil, Gerald Woffanda Maw, Arthur Rennie Muir, William Brown Clark, Thomas Stanhope Gildea Martin, George Holmes Uvedale Corbett, Alexander Hunter, and Cecil Powell. Dated Nov. 5th: Robert Higham Cooper, Samuel McMurrich McLay, and Stewart Ranken Douglas. Dated Nov. 6th: Sydney Arthur Tucker, Julius Meyer Bernstein, and Millais Culpin. Dated Nov. 7th: John Thomas McCullagh, Alexander Johnston Couper, George Wilson Clark, Henry Maitland Moir, Evan Parry Evans, Courtenay Yorke, Laurence Thompson Dean, Henry Vernon Swindale, and John Stevenson. Dated Nov. 9th: Reginald John Hearn, Herbert Sidney Forsdike, Ernest Sydney Hawthorne, Alexander Keith Forbes, Idwal Jones Williams, Albert Latimer Walker, Henry Reginald Stanley Van Ryck de Groot, George Ford Petrie, and Herbert George Murdoch Henry. Dated Nov. 10th: Frederick Edward Wynne, Godfrey William Mitchell, Thomas Murray Newton, Lawrence Crombie, Sidney John Cullum, Joe Downes Yule, John Horace Dancy, Robert Charles Robertson, Albert Ernest Cotterill, Alfred Herbert James, Charles William Smith, Robert Craig, and John Louis Menzies. Dated Nov. 11th: Herbert Midgley Cockcroft, Andrew Gilmour, James McManus, and Bruce Alexander West. Dated Nov. 12th: Alexander Waugh Young.

The undermentioned Lieutenants relinquish their temporary commissions:—Dated Nov. 6th: James M. Renton and Robert S. Berry.

SUPPLEMENTARY TO REGULAR UNITS OR CORPS.

Royal Army Medical Corps.

The undermentioned to be Lieutenants (on probation): Dated Sept. 11th: John Rollo Noel Warburton. Dated Oct. 16th: William Clavering Hartgill. Dated Oct. 26th: Mathew McKnight. Dated Oct. 28th: John Smith Sloper. Dated Nov. 2nd: Hugh Alderson Fawcett. Dated Nov. 3rd: Arthur Lawrence Anthony, John Deighton, Cromwell Gamble, Herbert Leslie Garson, William Kerr Russell, John Hunter Sewart, Charles Grimshaw Waddington, George William Watson, Colin Wilson, and William Arthur Young. Dated Nov. 5th: Henry Scott Anderson Alexander. Dated Nov. 7th: James Robertson Cowper McIntosh, Harry Neville Stafford, and Wilfrid Westwood Phillips.

SPECIAL RESERVE OF OFFICERS.

Royal Army Medical Corps.

Lieutenant Richard Granville Waddy, from King Edward's Horse (The King's Oversea Dominions Regiment), to be Lieutenant.

TERRITORIAL FORCE.

Royal Army Medical Corps.

The undermentioned to be Lieutenants:—Rankine Greig Walker, Arthur Joseph Gordon Hunter, James Robertson Menzies (late Lieutenant, Edinburgh University Contingent, Senior Division, Officers Training Corps), William Henry Armistead (late Cadet Corporal, Edinburgh University Contingent, Senior Division, Officers Training Corps), Archibald Mathison Stewart (late Cadet, Edinburgh University Contingent, Senior Division, Officers Training Corps).

4th London Field Ambulance: Captain Thomas B. Layton, from the Unattached List for the Territorial Force, to be Captain (temporary). Alfred Richard Spencer to be Lieutenant.

5th London Field Ambulance: Captain Robert Corfe to be Major.

6th London Field Ambulance: Captain Norman C. Rutherford, from the Unattached List for the Territorial Force, to be Major (temporary).

1st London (City of London) General Hospital: Philip Hamill to be Captain.

2nd London (City of London) General Hospital: To be Captains: Gordon Wilkinson Goodhart and Archibald Douglas Reid.

1st London (City of London) Field Ambulance: Robert Williamson Asher Salmond to be Lieutenant.

3rd London (City of London) Field Ambulance: Thomas John Tyndale McHattie to be Captain. Robert Carswell to be Lieutenant.

1st London General Hospital: Captain Robert J. W. Oswald to be Major.

South Wales Mounted Brigade Field Ambulance: Major Herbert Jones, from the list of officers whose services are available on mobilisation, Sanitary Service, to be Major.

1st East Anglian Field Ambulance: Captain Lee D. B. Cogan, from Attached to other than Medical Units, to be Captain. Lieutenant Robert Ellis, from Attached to other than Medical Units, to be Lieutenant.

2nd East Anglian Field Ambulance: Herbert Vawdrey Capon (late Lieutenant, 2nd East Anglian Brigade, Royal Field Artillery) to be Lieutenant.

3rd East Anglian Field Ambulance: To be Lieutenants: Raymond Herbert Swindells and Mountague Adye Cholmeley (late Lieutenant, Royal Army Medical Corps (Militia)).

3rd Highland Field Ambulance: John George Anderson to be Lieutenant.

1st North Midland Field Ambulance: Hugh Agnew Macmillan to be Lieutenant. Thomas Stokoe Elliot to be Lieutenant.

2nd North Midland Field Ambulance: Bertram Sherrard Wills to be Lieutenant.

1st Northumbrian Field Ambulance: Hubert Shield to be Lieutenant.

1st West Riding Field Ambulance: Lieutenant Basil

Hughes, from Attached to Units other than Medical Units, to be Lieutenant.

London Mounted Brigade Field Ambulance: Lieutenant-Colonel (Honorary Major in the Army) Edmond James Lawless (late 23rd (County of London) Battalion, The London Regiment) to be Lieutenant-Colonel.

3rd Lowland Field Ambulance: Captain Henry Alfred Leebody to be Major (temporary). Clifford Halliday Kerr Smith (late Cadet, Edinburgh University Contingent, Senior Division, Officers Training Corps) to be Lieutenant.

1st Welsh Field Ambulance: William George Helsby to be Lieutenant.

2nd Western General Hospital: The undermentioned to be Lieutenants: Charles Harold Crawshaw, Edward Stanley Brentnall, and Frank Graham Wrigley.

2nd Wessex Field Ambulance: John Penn Milton to be Lieutenant.

2nd London Sanitary Company: Lieutenant William John More Slowan to be Captain (temporary). Ashley George Gyton Thompson to be Lieutenant.

Sanitary Service: Alexander Grant Russell Foulerton to be Captain on the List of Officers available on Mobilisation.

North Midland Clearing Hospital: The undermentioned to be Lieutenants: Montague Dixon, William Thomas Wood, David Dewar McNeill, Vincent Ackroyd Palliser Costobadie, George William Macbeath Andrew, and James Hugh Thomas.

Attached to Units other than Medical Units.—Captain Richard Brodie to be Major. Lieutenant David Dickie to be Captain. To be Lieutenants: Charles Donaldson Law, Charles Martin Mitchell, Archibald Hamilton, William Love, George Loraine Kerr Pringle, Arthur Errington Ridsdale (late Second Lieutenant, Sussex Imperial Yeomanry), Joseph Swinburn Townley (late Second Lieutenant, Brecknockshire Battalion, The South Wales Borderers), George Dingwall Thomson, Lieutenant Eliezer Coplans, from the 1st London (City of London) Field Ambulance, Arthur Jonas Friedlander, Gordon Whitehead, John Stephenson Clarke, Patrick Black, and Harry Greenwood Butterfield.

TERRITORIAL FORCE RESERVE.

Royal Army Medical Corps.

Lieutenant-Colonel James C. Renton, from 4th Scottish General Hospital, to be Lieutenant-Colonel.

EXAMINATION FOR ENTRY AS ACTING-SURGEONS, R.N.

Owing to the outbreak of war the course for Acting-Surgeons has been curtailed, the greater part of the Haslar course being eliminated, though the Greenwich course was completed. As a consequence the places of these gentlemen on the list of surgeons, R.N., has had to be assigned on the results of the Entrance Examination with the addition of the marks gained at the examination at the end of the Greenwich course. The marks obtained and the order of seniority are as follows:—

H. B. Parker	2488	W. F. Beattie	2113
J. L. Priston	2427	H. W. Fitzroy-Williams ...	2074
R. F. Quinton	2365	F. B. Fitzmaurice	2005
M. J. Aitken	2336	T. J. O'Riordan	1981
J. A. Maxwell	2267	J. C. Kelly	1970
M. S. Moore	2193	J. M. Horan	1886
W. G. Thwaytes*	—	G. M. Graham	1811
C. E. Greeson	2132	F. C. Hunot	1805

The Admiralty prizes were awarded as follows:—Gold medal, Surgeon H. B. Parker, formerly of the London Hospital; silver medal, Surgeon J. L. Priston, formerly of the London Hospital; Greenwich group prize (pocket instrument case), Surgeon J. L. Priston.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN the 97 English and Welsh towns with populations exceeding 50,000 persons at the last Census, 8097 births and 4966 deaths were registered during the week ended Saturday, Nov. 21st. The annual rate of mortality in these towns, which had declined from 13·8 to 13·0 per 1000 in the four preceding weeks, rose in the week under notice to 14·3 per 1000 of their aggregate population, estimated at 18,120,059 persons at the middle of this year. During the first seven weeks of the current quarter the mean annual death-rate in these towns averaged 13·6, against 14·0 per 1000 in the metropolis. Among the several towns the death-rate last week ranged from 5·8 in Leyton and in Oxford, 5·9 in Hornsey, 6·7 in Bath, and 6·9 in Swindon, to 21·0 in Middlesbrough, 21·2 in Grimsby, 22·3 in Birkenhead, 22·4 in Rotherham, and 23·1 in Newcastle-on-Tyne.

The 4966 deaths from all causes were 449 in excess of the number in the previous week, and included 440 which were referred to the principal epidemic diseases, against 497 and 454 in the two preceding weeks. Of these 440 deaths, 148 resulted from measles, 138 from infantile diarrhœal diseases, 74 from diphtheria, 35 from whooping-cough, 28 from scarlet fever, and 17 from enteric fever, but not one from small-pox. The mean annual death-rate from these diseases was equal to 1·3 per 1000, and coincided with that recorded in the previous week. The deaths attributed to measles, which had increased from 67 to 167 in the five preceding weeks, fell to 148 last week, and caused the highest annual death-rates of 1·6 in Salford, 1·8 in Plymouth, 1·9 in Birkenhead, 2·4 in Rotherham, 2·6 in Gateshead, 2·8 in Wigan, 3·0 in Wakefield, and 3·4 in Newcastle-on-Tyne. The deaths of infants (under 2 years) referred to diarrhœa and enteritis, which had steadily declined from 1223 to 131 in the nine preceding weeks, rose to 138 last week, and included 34 in London, 9 in Liverpool, 8 in Birmingham, 7 in Nottingham, and 6 each in Manchester, Sheffield, and Newcastle-on-Tyne. The fatal cases of diphtheria, which had been 61, 93, and 58 in the three preceding weeks, rose to 74 last week, of which 20 occurred in London, 4 each in Birmingham and Manchester, and 3 each in West Ham, Portsmouth, and Bristol. The deaths attributed to whooping-cough, which had been 32, 38, and 39 in the three preceding weeks, fell to 35 last week, and included 12 in London, 3 each in Liverpool and Newcastle-on-Tyne, and 2 in Bristol. The deaths referred to scarlet fever, which had been 38, 34, and 42 in the three preceding weeks, fell to 28 last week, of which 10 belonged to London, 5 to Manchester, and 2 each to Salford and Oldham. The fatal cases of enteric fever, which had been 14, 17, and 17 in the three preceding weeks, were again 17 last week, and included 3 in London and 2 each in Enfield, Southend-on Sea, and Hull.

The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals and the London Fever Hospital, which had steadily increased from 3071 to 4976 in the 13 preceding weeks, had further risen to 5005 on Saturday last; 627 new cases were admitted during the week, against 598, 690, and 751 in the three preceding weeks. These hospitals also contained on Saturday last 1631 cases of diphtheria, 66 of enteric fever, 59 of whooping-cough, and 54 of measles, but not one of small-pox. The 1264 deaths from all causes in London were 109 in excess of the number in the previous week, and corresponded to an annual death-rate of 14·6 per 1000. The deaths referred to diseases of the respiratory system, which had been 197, 193, and 181 in the three preceding weeks, rose to 203 in the week under notice, but were 3 below the number in the corresponding week of last year.

Of the 4966 deaths from all causes in the 97 towns, 187 resulted from different forms of violence and 393 were the subject of coroners' inquests, while 1446 occurred in public institutions. The causes of 57, or 1·1 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest. All the causes of death were duly certified in London and in its 14 suburban districts, in Leeds, Bristol, Salford, and in 48 other smaller towns. Of the 57 uncertified causes of death, 11 were registered in Birmingham, 9 in Liverpool, 3 in Hull, and 2 each in Southend-on-Sea, Bootle, Bradford, Sheffield, Darlington, and Sunderland.

HEALTH OF SCOTCH TOWNS.

In the 16 largest Scotch towns with an aggregate population estimated at 2,293,200 persons at the middle of this year, 1099 births and 730 deaths were registered during the week ended Saturday, Nov. 21st. The annual rate of mortality in these towns, which had been 14·6, 15·8, and 15·2 per 1000 in the three preceding weeks, rose to 16·6 per 1000 in the week under notice. During the first seven weeks of the current quarter the mean annual death-rate in these towns averaged 15·4, against 13·6 per 1000 in the 97 large English towns. Among the several towns the death-rate last week ranged from 7·0 in Clydebank, 7·6 in Kirkcaldy, and 8·8 in Kilmarnock, to 18·8 in Falkirk, 22·5 in Dundee, and 23·5 in Leith.

The 730 deaths from all causes were 62 in excess of the number in the previous week, and included 69 which were referred to the principal epidemic diseases, against 79 and 50 in the two preceding weeks. Of these 69 deaths, 19 resulted from infantile diarrhœal diseases, 17 from diphtheria, 16 from scarlet fever, 13 from whooping-cough, and 2 each from enteric fever and measles, but not one from small-pox. The mean annual death-rate from these

* Surgeon Thwaytes, through being seconded to the Royal Infirmary, Edinburgh, did not take the Greenwich course, and therefore has been allowed to take his original place in the London Entrance Examination, viz., seventh.

diseases was equal to 1·6, against 1·3 per 1000 in the 97 large English towns. The deaths of infants (under 2 years) from diarrhœa and enteritis, which had declined from 31 to 20 in the four preceding weeks, were 19 last week, of which 6 belonged to Glasgow, 4 to Dundee, 3 to Edinburgh, and 2 to Aberdeen. The deaths referred to diphtheria, which had been 16, 18, and 7 in the three preceding weeks, rose to 17 last week, and included 9 in Glasgow, 4 in Edinburgh, and 2 in Aberdeen. The fatal cases of scarlet fever, which had been 14, 17, and 8 in the three preceding weeks, rose to 16 last week; 8 deaths were recorded in Glasgow, 3 in Aberdeen, and 2 each in Dundee and Paisley. The deaths attributed to whooping-cough, which had been 14, 12, and 7 in the three preceding weeks, increased to 13 last week, of which 9 belonged to Glasgow. The 2 fatal cases of enteric fever were registered in Glasgow, and those of measles in Glasgow and Dundee.

The deaths referred to diseases of the respiratory system, which had steadily increased from 62 to 111 in the nine preceding weeks, were 112 in the week under notice; 26 deaths resulted from different forms of violence, against 30 and 32 in the two preceding weeks.

HEALTH OF IRISH TOWNS.

In the 27 town districts of Ireland with an aggregate population estimated at 1,205,280 persons at the middle of this year, 580 births and 423 deaths were registered during the week ended Saturday, Nov. 21st. The annual rate of mortality in these towns, which had been 15·2, 18·2, and 17·7 per 1000 in the three preceding weeks, rose to 18·3 per 1000 in the week under notice. During the first seven weeks of the current quarter the mean annual death-rate in these towns averaged 16·7, against corresponding rates of 13·6 and 15·4 per 1000 in the English and Scotch towns respectively. The annual death-rate last week was equal to 18·8 in Dublin (against 14·6 in London and 16·6 in Glasgow), 19·1 in Belfast, 27·9 in Cork, 15·2 in Londonderry, 6·8 in Limerick, and 13·3 in Waterford, while in the 21 smaller towns the mean death-rate did not exceed 13·5 per 1000.

The 423 deaths from all causes were 15 in excess of the numbers in the previous week, and included 44 which were referred to the principal epidemic diseases, against numbers declining from 51 to 40 in the three preceding weeks. Of these 44 deaths, 13 resulted from infantile diarrhœal diseases, 12 from scarlet fever, 10 from measles, 4 from diphtheria, 3 from enteric fever, and 2 from whooping-cough, but not one from small-pox. The mean annual death-rate from these diseases was equal to 1·9, against 1·3 and 1·6 per 1000 in the English and Scotch towns respectively. The deaths of infants (under 2 years) from diarrhœa and enteritis, which had been 19, 21, and 10 in the three preceding weeks, rose to 13 last week, and included 7 in Dublin and 2 each in Belfast and Waterford. The deaths referred to scarlet fever, which had been 12, 6, and 14 in the three preceding weeks, fell to 12 last week, of which 6 were recorded in Belfast and 4 in Waterford. The fatal cases of measles, which had been 7, 11, and 9 in the three preceding weeks, were 10 last week, and comprised 9 in Belfast and 1 in Cork. The 4 deaths attributed to diphtheria, of which 2 occurred in Cork, were double the average in the earlier weeks of the quarter. Of the 3 deaths referred to enteric fever 2 were registered in Dublin and 1 in Belfast; the 2 fatal cases of whooping-cough occurred in Belfast.

The deaths referred to diseases of the respiratory system, which had been 61, 85, and 67 in the three preceding weeks, rose to 85 in the week under notice. Of the 423 deaths from all causes, 123, or 30 per cent., occurred in public institutions, and 7 resulted from various forms of violence. The causes of 9, or 2·1 per cent., of the total deaths were not certified either by a registered medical practitioner or by a coroner after inquest; in the 97 large English towns the proportion was equal to 1·1 per cent.

VITAL STATISTICS OF LONDON DURING OCTOBER, 1914.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in the City of London and in each of the metropolitan boroughs. With regard to the notified cases of infectious diseases, it appears that the number of persons reported to be suffering from one or other of the 10 diseases specified in the table was equal to an annual rate of 14·0 per 1000 of the population, estimated at 4,516,612 persons in the middle of the year; in the three preceding months the rates were 7·8, 7·5, and 11·6 per 1000 respectively. The lowest rates last month were recorded in Chelsea, Hackney, Holborn, the City of London, and Wandsworth; and the highest rates in St. Pancras, Bethnal Green, Stepney, Deptford, and Woolwich. Scarlet fever was again much more prevalent than it had been in any previous month of this year; the greatest proportional prevalence of this disease was recorded in Hammersmith, St. Pancras, Stepney, Southwark, and Deptford. The Metropolitan Asylums Hospitals contained 4561 scarlet fever patients at the end of last month, against 3113, 3199, and 4157 at the end of the three preceding months; the weekly admissions averaged 618, against 410, 414, and 598 in the three preceding months. Diphtheria was also very much more prevalent than in any earlier month of the year; this disease was proportionally most prevalent last month in Hampstead, St. Marylebone, St. Pancras, Stepney, Deptford, and Woolwich. The number of diphtheria patients under treatment in the Metropolitan Asylums Hospitals, which had been 1042, 1030, and 1296 at the end of the three preceding months, had further risen to 1489 at the end of last month; the weekly admissions averaged 213, against 131, 128, and 188 in the three preceding months. Enteric fever was slightly less prevalent than in the previous month; the greatest proportional prevalence of this disease last month was recorded in Chelsea, the City of Westminster, Holborn, Shoreditch, and Greenwich. There were 65 enteric fever patients under treatment in the Metropolitan Asylums Hospitals at the end of last month, against 36, 39, and 57 at the end of the three preceding months; the weekly admissions averaged 11, against 6, 7, and 11 in the three preceding months. Erysipelas was proportionally most prevalent in Shoreditch, Bethnal Green, Stepney, Southwark, Deptford, and Greenwich. The 34 cases of puerperal fever notified during the month included 7 in Camberwell and 4 each in Stepney and in Southwark. The 3 cases of cerebro-spinal meningitis belonged respectively to Chelsea, Shoreditch, and Stepney; and of the 7 cases of poliomyelitis 2 belonged to Stepney and 1 each to Islington, Finsbury, Shoreditch, Lambeth, and Camberwell.

The mortality statistics relate to the deaths of persons actually belonging to the several boroughs, the deaths occurring in institutions having been distributed among the boroughs in which the deceased persons had previously resided; the death-rates from all causes are further corrected for variations in the sex and age constitution of the populations of the several boroughs. During the four weeks ending Oct. 31st the deaths of 4894 London residents were registered, equal to an annual rate of 14·1 per 1000; in the three preceding months the rates had been 11·3, 12·6, and 15·5 per 1000 respectively. The death-rates last month ranged from 9·3 in Stoke Newington, 10·0 in Hampstead, 10·4 in Wandsworth, 10·5 in Lewisham, 11·0 in Chelsea, and 11·9 in the City of London, to 15·6 in Battersea, 16·3 in St. Pancras, 16·9 in Bethnal Green, 19·2 in Finsbury, 19·6 in Shoreditch, and 21·0 in Southwark. The 4894 deaths from all causes included 97 from measles, 23 from scarlet fever, 83 from diphtheria, 38 from whooping-cough, 11 from enteric fever, and 334 from diarrhœa and enteritis among children under 2 years. The lowest death-rates from these infectious diseases were recorded in Kensington, Chelsea, Hampstead, Stoke Newington, Holborn, the City of London, Wandsworth, and Lewisham; and the highest rates in Fulham, Islington, Shoreditch, Bethnal Green, Poplar, and Southwark. The 97 fatal cases of measles were 26 above the corrected average number in the corresponding period of the five preceding years; this disease was proportionally most fatal in Hammersmith, St. Pancras, Hackney, Shoreditch, Bethnal Green, Poplar, and Southwark. The deaths from scarlet fever were 7 above the average; of the 23 fatal cases recorded last month 6 belonged to Stepney, 3 to Fulham, and 2 each to Islington, Bethnal Green, Poplar, and Wandsworth. The 83 deaths from diphtheria were 42 in excess of the corrected average number; this disease was proportionally most fatal in Fulham, Hampstead, Islington, Shoreditch, Camberwell, and Woolwich. The 38 fatal cases of whooping-cough were 3 above the average; the highest death-rates from this disease were recorded in Paddington, Fulham, Finsbury, Shoreditch, Bethnal Green, and Southwark. The 11 deaths from enteric fever were 11 below the average, and included 2 in Hampstead and 2 in Lambeth. The mortality from diarrhœa and enteritis among children under 2 years of age was proportionally greatest in Shoreditch, Bethnal Green, Poplar, Southwark, and Bermondsey. In conclusion, it may be stated that the aggregate mortality in London last month from the principal infectious diseases was 35·2 per cent. above the average.

NATIONAL UNIVERSITY OF IRELAND.—Among those who have been coöpted Members of the Senate of the National University of Ireland are Dr. J. F. O'Carroll, of Dublin, and Mr. C. Y. Pearson, of Cork.

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING OCTOBER, 1914.

(Specially compiled for THE LANCET.)

CITIES AND BOROUGHS.	Estimated population in the middle of 1914.	NOTIFIED CASES OF INFECTIOUS DISEASE.												DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cerebro-spinal meningitis.	Poliomyelitis.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Enteric fever.	Diarrhœa and enteritis (under 2 years).	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.†
LONDON...	4,516,612	—	3159	998	—	83	1	34	366	3	7	4851	14·0	—	97	23	83	38	11	334	586	1·7	4894	14·1
West Districts.																								
Paddington	142,055	—	100	28	—	1	—	—	12	—	—	141	12·8	—	—	1	2	2	—	10	15	1·4	150	13·6
Kensington	170,817	—	126	20	—	1	1	—	16	—	—	164	12·5	—	1	1	—	1	—	8	11	0·8	183	13·9
Hammersmith	124,750	—	121	13	—	3	—	2	5	—	—	144	15·0	—	5	—	2	1	1	2	11	1·1	120	12·4
Fulham	158,849	—	111	32	—	2	—	1	14	—	—	160	13·1	—	4	3	4	4	—	17	32	2·6	165	14·0
Chelsea	63,791	—	15	3	—	3	—	1	4	1	—	27	5·5	—	—	—	—	—	1	1	2	0·4	87	11·0
City of Westminster	152,346	—	91	16	—	6	—	—	13	—	—	126	10·8	—	1	—	2	1	1	7	12	1·0	134	12·1
North Districts.																								
St. Marylebone	112,892	—	79	31	—	2	—	—	3	—	—	115	13·3	—	—	1	2	1	—	7	11	1·3	119	14·0
Hampstead	86,731	—	23	55	—	1	—	—	5	—	—	84	12·6	—	—	—	3	—	2	—	5	0·8	63	10·0
St. Pancras	212,497	—	196	63	—	3	—	1	27	—	—	290	17·8	—	8	—	4	2	—	15	29	1·8	265	16·3
Islington	324,764	—	271	66	—	7	—	2	46	—	1	393	15·8	—	8	2	11	2	—	30	53	2·1	372	14·5
Stoke Newington	50,454	—	40	6	—	1	—	2	8	—	—	57	14·7	—	—	—	—	—	—	1	1	0·3	38	9·3
Hackney	223,724	—	95	43	—	3	—	1	34	—	—	176	10·3	—	13	—	3	2	1	13	32	1·9	219	12·9
Central Districts.																								
Holborn	45,861	—	12	7	—	2	—	—	3	—	—	24	6·8	—	—	—	1	—	1	—	2	0·6	52	14·8
Finsbury	83,212	—	50	13	—	1	—	—	8	—	1	73	11·4	—	—	—	1	2	—	8	11	1·7	124	19·2
City of London	17,129	—	5	4	—	—	—	—	1	—	—	10	7·6	—	1	—	—	—	—	—	1	0·8	15	11·9
East Districts.																								
Shoreditch	108,869	—	60	20	—	4	—	2	23	1	1	111	13·3	—	9	1	3	2	—	18	33	4·0	159	19·6
Bethnal Green	127,662	—	108	32	—	1	—	—	49	—	—	190	19·4	—	7	2	1	4	—	30	44	4·5	160	16·9
Stepney	273,265	—	351	122	—	1	—	4	54	1	2	535	25·5	—	2	6	4	2	—	24	38	1·8	306	15·2
Poplar	160,222	—	93	42	—	5	—	2	17	—	—	159	12·9	—	6	2	3	1	1	24	37	3·0	187	15·0
South Districts.																								
Southwark	186,941	—	166	30	—	5	—	4	35	—	—	240	16·7	—	13	—	2	5	—	31	51	3·6	300	21·0
Bermondsey	124,213	—	58	23	—	1	—	—	16	—	—	100	10·5	—	4	—	2	—	1	14	21	2·2	144	15·1
Lambeth	298,724	—	185	50	—	3	—	1	28	—	1	268	11·8	—	8	—	6	—	2	20	36	1·6	361	15·6
Battersea	167,338	—	128	28	—	—	—	—	24	—	—	180	14·0	—	4	—	2	2	—	17	25	1·9	177	13·9
Wandsworth	338,998	—	144	60	—	5	—	2	28	—	—	239	9·2	—	—	2	7	1	—	10	20	0·8	271	10·4
Camberwell	262,020	—	159	43	—	6	—	7	25	—	1	241	12·0	—	3	1	7	1	—	10	22	1·1	285	14·0
Deptford	109,182	—	115	30	—	1	—	—	18	—	—	164	19·6	—	—	—	1	1	—	8	10	1·2	120	14·1
Greenwich	96,037	—	64	22	—	5	—	—	20	—	—	111	15·1	—	—	—	1	—	—	6	7	1·0	95	12·7
Lewisham...	172,433	—	92	32	—	4	—	—	13	—	—	141	10·7	—	—	—	3	—	—	2	5	0·4	141	10·5
Woolwich...	122,836	—	100	64	—	—	—	2	13	—	—	179	19·0	—	—	1	6	1	—	1	9	1·0	112	12·2
Port of London	—	—	1	—	—	6	—	—	2	—	—	9	—	—	—	—	—	—	—	—	—	—	—	—

* Including membranous croup. † The death-rates are corrected for variations in sex- and age-constitution of the populations of the several boroughs, the population of England and Wales being taken as the standard.

Obituary.

ISAAC BURNEY YEO, M.D. LOND., F.R.C.P. LOND.,

CONSULTING PHYSICIAN TO KING'S COLLEGE HOSPITAL AND TO THE WESTMINSTER GENERAL DISPENSARY.

THE sudden death of Dr. Isaac Burney Yeo, of Cadogan-place, S.W., which occurred on Nov. 20th, removes a personality for many years familiar in the West-end of London and at many foreign health resorts.

Until comparatively recently Dr. Burney Yeo maintained such an appearance of youthful vigour that it will perhaps be a surprise to many to learn that he commenced his medical studies at King's College, London, so far back as 1858, and that even then his age was somewhat in advance of that of most of the men of his year. He gave early promise of subsequent distinction, being awarded one of the junior scholarships at the end of his first year, and later gaining the senior scholarship. In view of the trend of much of his work in after life it is interesting to note that in the first year of his studies he obtained a prize in materia medica. In 1865 he was appointed resident medical tutor at King's College, a post he held until 1871. Meanwhile he had been elected assistant physician at King's College Hospital, and was also similarly engaged at the Brompton Hospital for Consumption and Diseases of the Chest, a connexion which was continued for ten years. In 1871 he resigned the medical tutorship and took up his residence in Hertford-street, Mayfair, where he remained for the greater part of his life. Gifted with a fluent pen and a graceful style, he wrote many articles in the *Fortnightly*, the *Contemporary*, and the *Nineteenth Century* on subjects connected with the treatment of various forms of disease at foreign health resorts, and doubtless these contributed largely to his success in his particular line. In preparing for these articles he took long autumn holidays in Switzerland, and in the days when it was permissible to practise there without having a foreign qualification he used to astound medical climbers by always appearing dressed as though about to visit patients in town. Those who knew him well realised that it was impossible to expect to see him in loose, untidy garb; when in London he always affected the same trim appearance, and maintained a calm, deliberate professional manner. In 1885 he was made professor of clinical therapeutics at King's College, but the course of lectures was not obligatory and was poorly attended, though it led to the publication in 1893 of a very successful "Manual of Medical Treatment." In this work he approached the teaching of therapeutics from the side of the disease, and not from the side of the drug or remedy, following the example of Dujardin-Beaumetz in his "Leçons de Clinique Thérapeutique" and of Hare's "System of Practical Therapeutics," and freely acknowledging his indebtedness to these authors. From its lucidity this book met with ready acceptance and speedily passed through several editions. The other two books from his pen, "Food in Health and Disease" and "Climate and Health Resorts," although they possessed the same charm of diction, were addressed more to the public than to the student of medicine, and did not attract much attention. For a short time before the end of his career at King's College Hospital he was associated with the late Dr. A. B. Duffin as joint professor of medicine, and on his retirement he was elected consulting physician and emeritus professor of medicine.

As a teacher in the wards he was perhaps unduly emphatic and impressive; students, who are keen critics, were sometimes suspicious of a steady level of emphasis. His teaching was sound, however, and it was based on considerable experience of all chest diseases, while his ready store of knowledge of matters connected with climatic and therapeutic details was invaluable to those who were sufficiently advanced to appreciate the wealth of material presented to them. Still it must be confessed that many who heard of the advantages of the climatic treatment of consumption over the bedside of an ordinary patient in hospital were inclined to be sceptical, so long as these improvements could not be demonstrated in the case which furnished the text for the discourse. Of his sincerity there could be no question, but students, unless of the post-graduate type, desire a supply of material which can be of service in the examination room or of which they can expect to make use in the near future, among the poor patients likely to be their portion in the early years after qualification. While his teaching was, therefore, in advance of the needs of the average student, his house physicians and many young practitioners learnt to respect his obvious sincerity and to be grateful for innumerable hints which resulted from observation or from a watchful interest in current literature.

It is somewhat difficult to estimate his position as a colleague. Comparatively early in his career he was disappointed by the non-realisation of cherished schemes, and this led to a degree of angularity towards certain senior colleagues to whom, rightly or wrongly, he attributed the slight. This led to a certain aloofness which pervaded his relationship with many of his colleagues, and, while he was capable of forming many firm friendships, his attitude towards colleagues was frequently marked by an air of neutrality, and sometimes of hostility. To those who were admitted to intimacy he was at all times charming; as a raconteur, especially of gossip connected with professional matters, he was probably unrivalled, and as a member of the Garrick Club it was natural that many of his anecdotes should be connected with literary, artistic, and theatrical subjects, which never fail to find eager auditors. This facility always led to a ready welcome in society, and for many years his figure was familiar also at the meetings of the British Medical Association. On several occasions he contributed papers at these annual gatherings, but his sensitive character and his impatience of opposition led to some degree of friction on more than one occasion.

As a scientific physician he was distinctly successful in acquiring a high class of consulting work; his emphatic manner was impressive on medical points, while it was once remarked of him that on entering a drawing-room he instinctively knew the right amount of deference to be observed to each individual lady of title who might be present. The secret of his success, however, was more probably to be found in the diagnostic skill he brought to each patient and in his method of coping with the difficulties presented by each individual case. Reference has already been made to his range of professional study and his ready assimilation of new ideas. Among other examples may be instanced his development of the theory of intestinal antisepsis, his construction of the

inhaler for consumptives which bears his name, and the evolution of a special form of treatment for typhoid fever. The number of new remedies he employed in hospital work can be gathered from a perusal of the early editions of his "Manual of Medical Treatment," but while he felt impelled to test the validity of every claim, his conclusions may frequently be summed up as "Non proven." Enthusiastic, yet cautious, bold and plain speaking, yet sensitive and reserved, filled with the self-respect which he considered was his due as a representative of an honourable branch of the medical profession, his sudden death creates a blank in the fast thinning ranks of general physicians.

Rather late in life he married Winifred Helen, daughter of the late Dr. T. Spyers, who survives him. He leaves no children.

EUSTACE SMITH, M.D. LOND., F.R.C.P. LOND.,

SENIOR PHYSICIAN TO THE EAST LONDON HOSPITAL FOR CHILDREN; CONSULTING PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.

Dr. Eustace Smith, whose death occurred after a short illness on Saturday, Nov. 14th, in his eightieth year, was the third son of the Rev. J. H. Smith, vicar of Milverton, Warwickshire, and was educated first at Leamington College and afterwards at University College, London. He studied for some time in Paris, qualified M.R.C.S. Eng. in 1858, and subsequently graduated as Doctor of Medicine in the University of London in 1865. In 1870 he joined the staff of the East London Hospital for Children, Shadwell, becoming senior physician to that hospital as long ago as 1874, in which year he was elected a Fellow of the Royal College of Physicians of London. Despite his age he was in active consulting practice till a few weeks ago, and his keen interest in medical work in its relation to the health of the child was never relaxed. At the Seventeenth International Congress of Medicine held last year in London he was President of the Section for Children's Diseases, and he was a late president of the Medical Officers of Schools Association. For some time in his earlier professional career he travelled with the late King of the Belgians, Leopold II., by whom he was appointed physician, and nominated Chevalier of the Order of Leopold.

Dr. Eustace Smith was a frequent contributor to English and American medical journals, and was the author of a book entitled "Wasting Diseases of Infants and Children," which has gone through six editions, and thoroughly deserved its popularity. He wrote also "A Practical Treatise on Disease in Children," "Clinical Studies of Disease in Children," and "Some Common Remedies and their Use in Practice." He also contributed the article on "Diseases of Children" in Quain's "Dictionary of Medicine," and wrote many other articles on allied subjects for Allbutt's "System of Medicine," "The Index of Treatment," and Latham and English's "System of Treatment." He married in 1875 Katharine Isabella Place, by whom he had a son and a daughter.

Dr. Graham Little writes: "Dr. Eustace Smith's name is imperishably associated with the East London Hospital for Children, of which he became senior physician as long ago as 1874. As now the oldest member of the active staff of that hospital I should like to put on record some of the personal impressions left by 19 years of close association with him. Although he had joined the staff long before some of its present members were born, he retained to the very last—and I came home with him from the hospital only 12 days before his death—a vigorous openmindedness which the youngest of us might envy, and which accorded well with his singularly youthful appearance. He was delighted when, as often happened, patients who had consulted him some 20 or 30 years earlier, sought him out, and when confronted with him insisted that he must be his own son. 'When I was a child,' such a patient would say, 'I was taken to see your father,' and 'Sometimes,' said my old friend, 'I do not trouble to disabuse them by telling them that it was myself they saw.' It was our custom since I joined the staff to hold an annual dinner of past and present members, of which I had the organisation. He was, of course, the permanent president of these gatherings, and has not missed one of them in 19 years. Awaiting the arrival of guests at one of these functions, I was standing with Sir Bryan Donkin at the head of the stairs leading to the reception room. We saw a tall and agile figure bounding up from the foot of the long ascent, taking three steps at a time. 'That is certainly Smith,' said Donkin; 'no one else is as young as that,' and he was right. If Heckford originated the East London Hospital for Children, Eustace Smith made and established its present great reputation. He loved it like a father. Joining the staff only two years after its foundation, for 43 years he gave unstintingly of his time and thought and care. His management of committee meetings, both medical and lay, was delightful. I feel sure that there are many other members of the present staff who, like myself, have felt so strong an affection for 'our senior physician' that we have remained members longer than we should otherwise have done were it not for the lure of that commanding personality. He was ever ready to help his younger colleagues, whether it might be to put practice in the way of the struggling junior, to help a man to the coveted F.R.C.P. in the most unobtrusive and delicate manner, or to place at his disposal his marvellous store of experience. His spirit permeated the entire institution, and everyone who has ever been associated with 'Shadwell,' in any capacity whatever, loves it with a very special love. He had a very happy and humorous readiness of repartee. He used to narrate with glee a little incident which happened in his attendance on King Leopold of Belgium, whose physician he was up to the King's death. During one of his visits to England His Majesty complained of insomnia, which Eustace Smith treated perfectly successfully with a nightly dose of 15 grains of bicarbonate of soda. The King returned to his own country, and it was only after some considerable period of time that he again met his English physician. When he did so something like the following conversation ensued: 'Do you know, Dr. Eustace Smith, that I showed the prescription you gave me for sleeplessness to my Court physician, and he tells me that you ordered me *common* bicarbonate of soda?' 'But, if I remember right, your Majesty benefited by my treatment.' 'Oh, yes, it cured my insomnia, but bicarbonate of soda is such a very commonplace drug. My physician was quite surprised at your ordering it for me.' 'Ah, your Majesty, you will forgive me for reminding you that Naaman the Syrian also objected to the Jordan as too commonplace a stream for his use—until immersion in it cured his leprosy.' Surely a knockout reply! Eustace Smith was immensely pleased with the well-deserved compliment paid to him in his selection to preside over the Children's Section at the last International Congress. But there is

reason to think that the fatigue, and especially the disturbance of his very regular habits entailed by the abounding hospitality of that festival, first impaired his marvellous vitality. It is a curious coincidence that another most beloved octogenarian of a similar abundant activity, Lord Roberts, died on the same day and very nearly at the same hour. It is not too much to say that to a very large circle of friends and patients something like the same void is made by the death of 'our senior physician' as is felt by the nation at large to result from the loss of the great soldier."

Correspondence.

"Audi alteram partem."

VOLUNTEER SURGEONS FOR FRENCH HOSPITALS.

To the Editor of THE LANCET.

SIR,—As one of the men who answered Dr. James Donelan's appeal for surgeons for the French hospitals, my experiences in France may be of interest.

Accompanied by a colleague, Mr. A. L. Home, who like myself was recommended from the London Committee of the Croix Rouge Française, I went to Paris on Oct. 7th. On application to the head office of the French Red Cross we were told that at the moment there were no vacancies for supernumerary surgeons at the advanced ambulances. A wire, however, had just come in asking urgently for two English surgeons to take charge of a hospital at Villeneuve-sur-Lot, some 75 miles east of Bordeaux. Though we would have preferred to go to the actual front, we felt that we could not refuse; and in any case we were informed that just then very large drafts of wounded men were being sent down to the more remote parts of France in order to keep the metropolitan area free.

Our passports and credentials, including letters from influential persons connected with our provincial hospital at home, were duly examined. These being deemed satisfactory we were furnished with vouchers to obtain railway facilities and with a sort of contract setting forth that in return for our services we should receive board and lodging free. This contract was embodied in a letter of introduction to the lady who had sent the telegram and who it was that had turned her chateau into a hospital.

Travelling *vid* Bordeaux, on arriving at Villeneuve we found there were five hospitals containing 775 beds. Of these one was directly under the military authorities (200 beds) with a resident medical officer, Dr. Guy, who is an excellent X ray worker, one with 200 beds under the Société de Secours aux Blessés, and three others under l'Union des Femmes de France with 200, 75, and 70 beds respectively. The last four were served by elderly general practitioners resident in the district, and had each an efficient resident staff nurse and a body of Croix Rouge helpers more or less trained. It was to one of the smaller institutions which had been established solely at the expense of Madame Georges Leygues that we were specially recommended, though our services were demanded later at all the other hospitals except l'Hôpital Militaire.

We had a cordial welcome from our French *confrères*, and started into work at once at Madame Leygues's Hospital. But having been asked by the doctor in charge to see some of the more serious cases at one of the other hospitals, and having arranged to do the necessary operations for these, we were informed by the lady president of l'Union des Femmes de France that in case of any mishap the military authorities would hold her responsible unless we were previously "militarisés." This necessary formality should have been carried out for us by the committee in Paris. However, to rectify the omission Madame Leygues lost no time in taking us to Bordeaux, and we were formally "militarisés" by M. Millerand, the Minister of War, who, regardless of professional etiquette, gave us in writing amusingly plenipotentiary powers! Needless to say we used these with discretion.

This our second visit to Bordeaux was made very interesting through the kindness of Dr. Bourgonnier, who showed us systematically over his large hospital containing 2000 beds. It is established in a large college for boys, and is as near perfection as any such military hospital can be. Bourgonnier has a genius for organisation and discipline, and from the admission room, with its admirable arrangements for cleansing and germ prevention, to the mortuary and pathological section, no detail has been forgotten. He has a staff of experts for each department—pathological, X ray, operations, record department, &c.—and he has laid contribution on all the available medical and surgical resources of Bordeaux. He showed us one block palisaded off with high railings and barbed wire where about 50 wounded Germans lay. All their wounds were serious, mostly compound comminuted fractures. It was touching to see his kindness to these men, whose crestfallen and depressed demeanour contrasted markedly with the cheeriness of the wounded French. Asked how many of the 2000 wounded (including many severe compound fractures) who had had to have amputation of arm or leg performed Bourgonnier answered "none." Tetanus was being treated by thorough antiseptic cleansing and dressing. Deaths in the hospital from any cause had been few: three Germans and no Frenchmen up to Oct. 13th. We were also shown over two other large hospitals at Bordeaux. At one the ether and iodine treatment recommended by Dr. Vernier, of Hyères, was being extensively employed for tetanus with apparently marked success.

I was told on good authority that in Bordeaux and the immediately surrounding district alone there were 40,000 wounded. This is, I believe, not exaggerated. At Agen, a small town of 21,000 inhabitants, there were, I know, 2000 wounded. This was included in the Toulouse district, which was very full early in October, but had, on the authority of the General commanding, 2000 empty beds by Nov. 1st. Immediately on our return to Villeneuve we installed an operating theatre, the room which had been allotted for that purpose in the largest of the Red Cross hospitals being unsuitable from a surgical standpoint. We were given a small but lofty ward with a good north light. This was thoroughly scrubbed and limewashed, and a wooden partition quickly run up, forming a useful ante-room. Marble-topped restaurant tables freshly enamelled served for operating-tables, and to hold basins, instrument trays, &c. A portable stove and sterilisers were quickly forthcoming. Money was no difficulty.

During the remainder of our stay we acted as

consulting and operating surgeons. The practitioners gladly gave us every facility. With the greatest kindness and courtesy they turned the existing bad cases or any fresh severely wounded over to us, besides allowing us a general supervision over all the wards. As has been generally found everywhere, fresh bullet wounds healed quickly and kindly. Shrapnel frequently caused suppuration owing to the carrying in of fragments of clothing or to contamination from earth or clothes entering the ragged wounds. Among the cases we had under observation shrapnel and bullet wounds were in about equal proportion. It was not always easy to exactly tell what the projectile had been. We had no leg or arm amputations. Conservatism patiently and thoroughly carried out sufficed. Some finger amputations were necessary and extraction of irritating bullets. The careful dressing of large wounds, removal of sequestra, setting and thorough antiseptic dressing of compound fractures, scraping of sinuses and such like made up our operative work. We noted some extraordinary escapes. Two men were shot clean through the neck horizontally at the level of the upper border of the thyroid cartilage. Beyond the fact that one had had his recurrent laryngeal involved and was very hoarse, neither of them was a pin the worse. I had a case almost identical with the hand figured on p. 1174 of THE LANCET of Nov. 14th, except that the bullet entered the back of the hand and made an extensive wound of the palm. I considered that this was not due to a dum-dum but to the fact that the head and shaft of the second and third metacarpal bones were smashed and driven through the muscles and skin. It was suppurating profusely when I saw it first and causing intense pain. I removed several sequestra, thoroughly scraped it, swabbed it with iodine, and put the hand into a continuous boric bath. It healed well.

A word as to the nursing and feeding at these hospitals. It was excellent. Those southern women are extraordinarily adept. Though possessed of a comparatively meagre preliminary training, they had imbibed the aseptic idea, and their unofficious tenderness, natural skill, and charm of manner rendered them most suitable for the work they had to do. Their facility at massage was remarkable, and they faithfully carried out orders. Many of them were, of course, intelligent ladies, and they were not playing at nursing. The daily menus, and still more the appetising invalid cookery for special cases, were admirable. I consider the men were well nursed. The work of the general practitioners was most creditable and entirely voluntary, and once we had been properly accredited our help was unreservedly and gratefully sought by them.

We left at the end of our month as we had information that for the present no more fresh wounded were to be sent into that district. Any surgeon with some facility in French desiring to help in a capacity similar to that I have sketched and not expecting to get much major surgery should find a useful and helpful sphere—and incidentally a pleasant holiday—in France for months to come. There is a dearth of surgeons from causes already pointed out in your columns. Application should be made beforehand to the Croix Rouge Française, and all formalities should be strictly complied with so as to avoid vexation and delay.

I am, Sir, yours faithfully,

Newport, Essex, Nov. 17th, 1914. J. ARTHUR BROWNE.

A PLEA FOR MORE CONSERVATIVE TREATMENT OF UTERINE APPENDAGES.

To the Editor of THE LANCET.

SIR,—One is impressed with the number of women nowadays who, for some reason or other, have been deprived of their reproductive organs, most of them for very weighty and necessary reasons. The modern gynæcologist has reduced the mortality of such operations to so small a percentage that it would seem that milder measures are often pushed aside as probably useless and tedious before they have been given a fair trial. These remarks, of course, apply chiefly to inflammatory conditions and the resulting adhesions. As illustrative of the class of case I have in my mind the following history is so unusual and instructive that I hope it justifies publication.

The patient, aged 33, had had three children, the first at full term and the second and third at seven months, all living. Six years ago her fourth pregnancy aborted at four months. There was considerable difficulty in extracting the fœtal head, and she had a sharp attack of pelvic inflammation in which the cellular tissue was largely involved. She was treated for some months by the usual methods, and an autogenous vaccine was also used over a long period. The infection was streptococcic. A purulent vaginal discharge, with occasional febrile attacks accompanied by pelvic pain, persisted, and early in 1911 she had an acute and definite attack of pyosalpingo-oöphoritis accompanied by a most profuse discharge. She recovered from this and tried a course of treatment at Ems. But at intervals she continued to have what may be termed "flares up," when the attacks were sufficient to cause considerable alarm.

Four consulting surgeons and gynæcologists of the highest reputation and standing expressed the opinion at various times that the patient would not be well until both tubes had been removed, and advised her to submit to the operation. A room at a nursing home was actually engaged and the date of the operation fixed, but as an example to all our British women in this present era she persisted that she meant to have as many children as it was possible, and that nothing would induce her to allow them to rob her of all such chances until absolutely compelled. Accordingly, her husband then took her to Paris and consulted Professor Pinard, who expressed his opinion to me that with absolute rest, long-continued hot douches, and rectal lavement she would get quite well, and added that he saw no reason why she should not become pregnant again. The former seemed possible, but the latter—considering the numerous repeated attacks of salpingitis, first in one tube, then in the other, and sometimes in both at once—seemed more than improbable. However, after two years' constant treatment she surprised everyone by becoming pregnant, and has now produced, with hardly any trouble from start to finish, a peculiarly healthy and fine infant at full term.

The patience and perseverance required would have been practically prohibitive to one of the working classes, but a history of this case may perhaps encourage greater patience on the part of some gynæcologists when treating any but the severest cases, and perseverance in treatment on

the part of their patients when in a position to be treated for a sufficiently long period.

I am, Sir, yours faithfully,

EDWARD P. FURBER, M.R.C.S. Eng.,
L.R.C.P. Lond.

Welbeck-street, W., Nov. 23rd, 1914.

INTRATRACHEAL ANÆSTHESIA.

To the Editor of THE LANCET.

SIR,—Mr. Wilfred Trotter's letter in your issue of Nov. 14th raises some points of interest to which I should like to reply. In the first place I find that he has no objection to the use of the intratracheal method in certain cases of cancer of the tongue—in fact, that he has often used it himself. This is an unexpected but welcome admission, unexpected because it was, I submit, impossible to infer this from his article, in which the intratracheal method was briefly mentioned and quickly condemned. Mr. Trotter objects to its use solely in cases in which the growth is foul and ulcerating. I should like to convince him of the safety of the method even in these cases. I have not unfortunately an accurate record of the nature of the growth in all the cases, 48, mentioned in my letter of Nov. 7th, but I find that at least 12 of them are noted as being large ulcerating growths. It is highly probable that some of the remaining 36 were not clean, although it must be stated at the same time that in several cases the growth was on the lip or anterior part of the tongue, and in consequence very unlikely to come into contact with the laryngoscope. I think the danger of bruising or tearing the growth is exaggerated. The anæsthetist can, if he is careful, avoid rough contact with the ulcerating surface.

In the second place I find it very difficult to agree with Mr. Trotter that the introduction of the tube is followed by spasmodic inspirations. It seems to me that he does not give due credit to the strong defensive reflexes of the larynx and trachea which (unless deep anæsthesia is present) are at once brought into play by the presence of the catheter so that coughing ensues, is made more vigorous by the addition of the ether vapour, and continues until deepening anæsthesia cuts it short. So strong are the respiratory efforts that the catheter may be forcibly coughed out—this happened to me on one occasion, the catheter being expelled a distance of at least four feet—and every writer describing the technique draws attention to the necessity of holding the catheter in place. If anæsthesia is deep on the introduction of the catheter there is, in my experience, no perceptible change in the character of the breathing, certainly nothing of the nature of spasmodic inspiration. The addition of the ether vapour may not in this case call the cough reflex into play, but it does immediately provide a strong upward draught at the glottis which would dislodge any septic material in the neighbourhood.

With regard to Mr. Rupert Jones's cases in THE LANCET of Nov. 7th (p. 1087), I do not think we are justified, after reading Mr. Hey Groves's letter in your issue of last week (p. 1220), in coming to the conclusion adopted by Mr. Trotter as to the origin of the lung infection.

Lastly, may I say that it was tracheotomy to which I took the objection that it increased the length of operation, not laryngotomy? The complications and difficulties of tracheotomy are the province of the surgeon. I feel, however, that catheterization is a simpler and less harmful procedure than either, and I am not convinced of the danger which prevents Mr. Trotter from adopting intratracheal insufflation in all his cases.

I am, Sir, yours faithfully,

FRANCIS E. SHIPWAY.

Queen Anne-street, W., Nov. 23rd, 1914.

IMMEDIATE MASSAGE OF SEPTIC LIMBS.

To the Editor of THE LANCET.

SIR,—The immense number of septic wounds being treated at the present time is my excuse for advocating in print a line of treatment which must be well known to the majority of the medical profession. In spite of the fact that the treatment of septic infection of limbs by immediate massage is an old one, many people object to it on the ground that it "spreads the toxin," but on being asked if they have tried it they almost always answer No. My own practice is to massage the limb the day after it has been freely incised and drained, the limb being taken out of the bath for massage. This treatment must, of course, be carried out by a skilled masseur.

I am, Sir, yours faithfully,

MALCOLM DONALDSON, F.R.C.S. Eng.

Le Havre, Nov. 20th, 1914.

THE 2ND LONDON CLEARING HOSPITAL.

To the Editor of THE LANCET.

SIR,—I should be very grateful if you would let it be known through the columns of your journal that the 2nd London Clearing Hospital is now being mobilised for service with the British Expeditionary Force and requires the services of two highly competent operating surgeons to complete its surgical staff. The clearing hospital, situated a little distance behind the fighting line, receives all the wounded of a division and is equipped to deal at once with the most serious cases. The officers appointed will receive commissions in the Territorial Force for the duration of the war.

I am, Sir, yours faithfully,

CHAS. MONK,
Lieutenant-Colonel, I.M.S. (retired),
Officer Commanding 2nd London Clearing Hospital.

Duke of York's Headquarters, Chelsea, S.W., Nov. 21st, 1914.

SANATORIUM TREATMENT.

To the Editor of THE LANCET.

SIR,—The comments of Professor Bang which you mention in THE LANCET of Nov. 14th, p. 1159, on the results of sanatorium treatment are to my mind somewhat extraordinary. In the first place, I should like to mention that out of 800 cases received into this sanatorium no case which was definitely unable to work on discharge has recovered after going home; it is true that two cases have improved temporarily beyond all expectation. With regard to first-stage cases not doing so well as many more advanced cases the reply is obvious. It is seldom that a first-stage case is admitted to a sanatorium unless suffering from severe or fairly severe general symptoms; all the mild cases are treated at home

and made into chronics, who may live for years in imperfect health, often capable of much improvement with a little rest. When the profession learns the proper way to treat an early case of phthisis with slight symptoms we may hope to get rid of the large number of chronics who are constantly about infecting the population.

The proper and best use of sanatoriums for the working class, at least, is to use them for the treatment of cases as early as possible, and they should not be allowed to work until either they have become favourable chronics or unfavourable acutes. It is more than probable that there is something radically wrong with the treatment at sanatoriums where so many have to return home before they even partially recover. The recovery of first stage cases without manifestly acute symptoms is usually uneventful, so much so that no belief in the existence of the disease remains at the end. An exception should be made with reference to children who usually require great patience to cure.

I am, Sir, yours faithfully,

EDWARD E. PREST.

Ayrshire Sanatorium, Nov. 17th, 1914.

PATRIOTISM OR ADVERTISEMENT?

To the Editor of THE LANCET.

SIR,—I presume that many members of our profession, like myself, have had sent to them a tin box for the collection of subscriptions in aid of the National Relief Fund. Upon this box or canister is an advertisement of a food for infants. It seems impossible to regard this otherwise than as a peculiarly ill-timed method of advertisement, and I hope members of our profession will resent it in an appropriate and practical fashion.

The box which was sent to me is on my consulting-room table, but the names of the advertisers and their wares have been carefully removed.

I am, Sir, yours faithfully,

HERBERT TILLEY, F.R.C.S. Eng.

Harley-street, W., Nov. 23rd, 1914.

THE WILD GIRL OF NAINI TAL.

To the Editor of THE LANCET.

SIR,—The story in the *Pioneer* to which reference has been made in THE LANCET was a gross exaggeration. The correct facts are these. An imbecile girl, aged about 10 years, was found strayed, and brought in by the police to the Crosthwaite Hospital. She was a very ordinary imbecile and showed no more signs of neglect than many other similar unfortunates. Her nails were not a quarter of an inch long, her hair was short and not matted, she ate ordinary food in the ordinary way when it was given her, she understood similar orders like "Sit down!" "Come here!" and even obeyed the ordinary Hindustani signs of beckoning. She had no unusual growth of hair, and though naturally enough was frightened in her new surroundings for the first day or so, there never was anything about her suggesting the wild human.

As I have said, she was a very ordinary imbecile, and has been sent to the lunatic asylum at Bareilly. I am, Sir, yours faithfully,

Naini Tal, U.P., India, Oct. 9th, 1914.

T. HUNTER, Major, Indian Medical Service.

THE WAR.

THE MENACE OF CHOLERA.

PERHAPS the most important item of medical war news during the past week or two has been the intelligence that cholera has appeared in various parts of Austria and Hungary. The authorities apparently succeeded in keeping the matter secret so long as it was confined to Galicia and Moravia: but it has now appeared in various parts of the dual empire, some hundreds of cases being reported in Vienna itself. This scourge always enters Europe from the East, and though the onset of winter is against its rapid propagation, the conditions of war now prevalent on the borders of Russia, Germany, and Austria undoubtedly render its rapid transmission westward a danger in the situation to be seriously considered and guarded against.

THE HEIGHT STANDARD AND RECRUITING.

A reduction in the minimum height of recruits has often been advocated. Under ordinary circumstances in our army the physical measurements required are increased or relaxed in stringency according to the supply of recruits available. Rajah Brooke of Sarawak wrote a few days ago urging that shorter men ought not to be excluded from defending their country: "They are assuredly not to be despised; they are more nimble than their higher brothers, and as for bravery no man can think they are wanting." The regulation requirements of 5 ft. 3 in. in height and 31 in. chest measurement can hardly be considered too stringent, especially as they may be relaxed in special cases at the discretion of the recruiting inspector. In the new bodies of troops raised for special service the precise measurements have not been insisted on, any man physically fit being accepted, and the age limit being extended to 38 years. We believe that the response to the call for men has been on the whole satisfactory up to the present, but there must be no slacking off. More men are still required to fill up the places in the front. The supply must be continuous, not a mere "dribble of reinforcements," but a steady influx of fresh troops to take the place of, and give much needed rest to, those who have been bearing the brunt of many weeks' hard fighting.

THE CASUALTY LIST.

The following casualties among officers of the Royal Army Medical Corps have been officially reported since our last issue:—

Killed: Captain Cecil Taylour Conyngham (in East Africa).

Wounded: Major A. W. A. Irwin, Captain C. J. Coppinger, and Lieutenant A. Watson. Lieutenant W. H. Lister is unofficially reported wounded.

COMFORTS FOR THE ROYAL ARMY MEDICAL CORPS.

There are now some 10,000 men of the Royal Army Medical Corps at the front, and a committee has been formed, with Lady Sloggett, wife of the Director-General with the Expeditionary Forces, as its president, for the purpose of sending "comforts" direct to the commanding officers for distribution. The committee will gratefully receive, pack, and forward such articles as cigarettes, tobacco, and woollen goods, which are urgently needed. Parcels should be addressed,

carriage paid, to "R.A.M.C. Comforts," Royal Army Medical College, Grosvenor-road, London, S.W.; and gifts of money should be sent to the secretary of the Royal Army Medical Corps Fund, Lieutenant-Colonel F. W. H. Davie Harris, 124, Victoria-street, S.W. We cordially associate ourselves with the objects of Lady Sloggett's committee.

THE WOUNDED AT CALAIS AND DUNKIRK.

Our Special Sanitary Commissioner sends the following notes in continuation of those which we published from him last week. We would remind our readers that the wounded to whom he refers are not British soldiers, but principally those of our Belgian allies:—

Complaints have been made concerning the condition of the trains used for carrying the wounded. Certainly where such emergency arises that cattle-trucks, commercial vans, or cars constructed for the transit of merchandise have to be converted into ambulance wagons much hardship and discomfort ensue. The wounded remain on the stretchers that bore them from the field, and 12 such stretchers may be in one cattle-truck. Of course, also, there is no corridor by which intercommunication can be established between these trucks, and any attendants who accompany the train cannot go to and fro among the patients. The journeys are often very long and no proper sanitary conveniences can be supplied. Though there are thousands of willing hands in all the towns who would gladly bring food and whatever may be required to the stations where the trains stop, it is not always known when the wounded are coming. The state of things is rapidly improving, but there was a great deal of misery in many places before better organisation prevailed.

There are a number of specially constructed corridor ambulance trains now operating in Northern France in which the wounded can be properly nursed and fed during the journey. But it is not always possible to bring these trains up to the point at which they are wanted, and this at the right moment. Then it has happened too often that the number of wounded is much in excess of the proper accommodation available, when it becomes necessary to adopt any expedient so as to bring the wounded where they can be properly treated. I saw two ambulance trains and they were both corridor trains, and if in respect of the brightness and cleanliness that distinguish a well-kept hospital much was wanting, they were at any rate doing extremely valuable service.

The Cleaning of Ambulance Trains.

Whether it was the carnage of war or the prevalent talk of German Kultur, I do not know, but a picture of what the Germans really do well came to my mind. The supervision exercised over the cattle trains at the Berlin municipal abattoir recurred to my memory. For these trains there is a convex cemented flooring with gullies leading to drains at short intervals along the track, so that the dirt washed out of the trucks should not sink into and contaminate the subsoil. There is regular cleaning out of the trucks at these intervals. Big reservoirs, built high, give a good head or force to water delivered by a hose. A regular staff, with buckets containing a 5 per cent. hot solution of soda, scrubbed, mopped, and squeegeed the inside of every cattle van. This was done after every journey, and all the year round, irrespectively of the prevalence or otherwise of any sort of cattle disease. At this stage I do not wish to criticise the conditions of ambulance trains, nor do I for a moment mean that an ambulance train should or could be treated like a cattle train; but what can be done for cattle should be greatly improved upon when it is a question of men, especially of wounded men. In all the towns where ambulance trains stop there are numerous unemployed who for this reason or that are not with the colours. Work might be found for some of these in dusting, cleansing, washing, and disinfecting the ambulance trains, and as this war settles more and more into a tedious affair of trench fighting, horribly relieved now and again by furious local assaults, some such organisation will doubtless be evolved.

The Need of Scavenger Brigades.

Nor is this the only work that such a cleansing brigade would have to do. When they arrive at the end of their journey the wounded cannot, as a rule, be taken from the train to the hospital, or it may be the ship, that is to receive them. They have to be classified, and usually their wounds need fresh dressing. In earlier days they were put in the station waiting-rooms or laid on the platforms; but now at Calais, at Dunkirk, at other stations where I have been, and, doubtless, at many stations where I have not been, sheds formerly used for the storing of goods have been converted into depôts for the wounded. Here, at least, they are under shelter and can receive some attention. Then according to the accommodation available and the nature of each case the patients are placed in the ambulance motors or carriages waiting outside and driven to a ship or a hospital. But these sheds were not built as hospital wards, and they require a great deal of scrubbing and cleansing to make them suitable for the purpose. Thus a cleansing brigade might be very usefully employed here as well as in the trains. Besides, we must always contemplate the possibility of some serious epidemic following in the wake of war, though the freedom of the allied forces from this scourge has so far been remarkable—or, perhaps, it would be more just to describe it as the proper return for extraordinary prevision and scientific labour. Therefore, the drilling of a sufficient number of men to be efficient cleansers and disinfectors is a very necessary precaution. Indeed, so far as my Dunkirk and Calais experience goes, I did not hear any demand for additional surgeons, only for a few more consultants. Some extra-trained nurses and dressers would be welcome; but the need, the great, urgent, crying need, was, it seemed to me, for scavengers and people to brush and to scrub. For this is a dirty war. The menial work is that which is most needed.

Railway Sheds as Depôts for the Wounded.

At the request of the Wounded Allies Relief Committee I drew up a report on the condition of the Dunkirk railway sheds where the wounded are received. The committee at its last meeting considered it advisable to withhold this report from publication, at least for the present—and I was not surprised. Moreover, some improvements had already taken place before it was presented. Some beds had been provided where formerly there was only straw, and straw that was not changed too often. Nor was the attention given to the wounded in earlier days as prompt as it should have been. This now is improved, but still needs improvement. There is, however, every reason to hope that, when proper representations have been made to the authorities concerned, the necessary measures will be taken. In the meanwhile everyone is anxious not to offend justifiable susceptibilities. This is the more necessary as the position is very complicated. Of course, being within 20 miles of the German trenches and a French town, the French military authority is the supreme authority in Dunkirk. On the other hand, Dunkirk is within five miles of the Belgian frontier and that small corner of the little kingdom where what remains of the heroic Belgian army is defending its native land with flood, fire, and sword. Therefore, a portion of the Dunkirk town hall has been assigned to the Belgian Minister of War, who is also the Prime Minister. From here the Baron de Broqueville directs and sees to the needs of the Belgian army. With a motor he can reach the advanced posts in less than an hour. On the other hand, all those who have a short release from duty in and near the fighting line in Belgium come into Dunkirk to recuperate, to enjoy a good meal and some rest. Thus though this is a French town, the scenes around are such as to give the place a Belgian appearance. So far as the British contingent is concerned, Dunkirk is a naval rather than a military post. Thus, what with the French military command, the British naval command, and the Belgian Premier and Minister of War, all exercising authority, the desire to obtain a scrubbing brush or a little carbolic acid may assume the intricate aspect of a complicated international diplomatic and military problem.

British Volunteer Hospitals.

Fortunately there is a levelling and an assimilating effect produced by war which wears down rough corners. Differences disappear in the face of results. The Society of Friends, Millicent Duchess of Sutherland, and others have stepped

into the breach, and now there are hospitals, admirably situated on the seashore, where French, British, Belgian, and German soldiers receive every attention from skilled English surgeons and highly-trained English nurses. All this seems to be in defiance of order and regularity, but in practice it works well, for it has largely contributed to save life and mitigate the terrible sufferings of the wounded.

British Help.

Further, this is a good example of the position in which the British nation stands in regard to the care of the wounded. There is no fighting in England, but there are any number of trained nurses and medical men who are most anxious to give their services. Some of them have gone over to France or to Belgium in the hope of being able to do something, but in war time the isolated individual is always looked upon with suspicion; therefore these volunteers had better strive to work for and through the well-known and accredited institutions. On the other hand, these latter should open the gate wide to willing and competent helpers. The French, on their side, must not take it amiss if we occasionally offer to do some of their work for them—and that work would have been infinitely more valuable if a percentage of educated Englishmen could speak intelligible French, and understand it when spoken. Our allies must just take us as we are and let us help—it may be in a somewhat irregular but none the less effective manner. Their task has been so gigantic that it is no stricture on them to say that certain things have been wanting here and there. So far as this has been the case with regard to the wounded, there is voluntary help forthcoming in Great Britain eager to go to the front. We can send surgeons and nurses out of all proportion to the number of British troops at the front. There are wealthy persons in each division of the United Kingdom eager to do something, willing to provide motor-cars, surgical instruments, and even salaries so that trained nurses can go to the continent and not be obliged to ask for payment from those whom they serve. This our allies should look upon as our further attempt to come to their aid without hesitation or stint. "We no not wish to be officious, we do not wish to interfere; but our hearts bleed and we do want to help." I quote these simple words, uttered to me, because they so exactly represent the situation.

THREE MONTHS' STAY IN DRESDEN.

The following communication has been received by us from an English pathologist who was constrained to remain in Dresden during the earlier part of the war:—

At the outbreak of war on July 25th between Austria-Hungary and Serbia the writer was in Vienna. During the following week I was allowed to attend the hospital practice at the Van Noorden Institute, and during this time was treated with every possible courtesy. At the end of the week the work of the hospital had been so curtailed as a result of numerous absentees that it served no good purpose to remain in Vienna, and in the last express train (as I understood) I travelled to Dresden during the night of August 2nd with the intention of reaching England. On the following day, after visiting Friedrichstadtkrankenhaus in Dresden, where I had previously been working for a period of six months, I was asked to assist in the pathological department, as the assistant staff had with two exceptions left to join their several regiments. However, as during the day it had been decided by the local authority to allow no foreigner to enter the hospital, I was relieved of an awkward situation, and decided to continue the journey to England. It may be here remarked that the general opinion was, as far as could be judged from the newspapers, that England would probably not join in the war. Unfortunately, being arrested as a suspicious person on the evening of the 3rd and being set free through the good offices of the professor under whom I had been working, I missed the last train to England that day. I got out of Dresden on the night of Tuesday, August 4th, and having some knowledge of the German tongue, I was able to avoid declaring my nationality to the numerous passengers who were travelling in the military trains to their various destinations. At Hanover on Wednesday afternoon, August 5th, an examination of tickets and passports led to a detention of some eight hours in company with several Russian peasants. The officer in command of the watch was cautious, and in conjunction with his men pointed out the iniquity of declaring war on cousins and co-religionists—i.e., Protestants. My passport and tickets were taken away, and permission to seek out a hotel for the night was given, with a strong recommendation not to declare my nationality, or a bed would certainly be refused, and that, as the people were very bitter against England, I might be molested. A soldier of the watch very kindly offered to find me a hotel and to guarantee me protection. The proprietor of the hotel, after having declared his views on England's treachery, introduced me to his relations, some of whom in uniform were about to leave for the front. A Landwehrmann present assured me that he had then no personal grudge against me, but he would give himself the pleasure of introducing his bayonet to me if we perchance met later in Belgium. Not accepting the offer to work at the getting in of the harvest, I was allowed at my own request to return to Dresden on the following day in the company of reservists and German refugees from Belgium. Being more than once told I looked English, the fact without a direct denial passed unchallenged, and having mentioned that I studied medicine, mutual confidence was established after a discussion as to the best methods of treatment for the three cases of gleet amongst my companions.

For the remainder of the next three months I made an enforced stay in Dresden, but I was put to no more inconvenience than that caused by having to report myself twice weekly to the police authorities and to remain within the city boundaries. The definition of the city boundaries was seemingly elastic, and if inadvertently the limits were passed there was in Dresden apparently no resulting punishment. Throughout the police authorities were uniformly courteous. After Sept. 2nd I was even allowed to take photographs, with the exception of public buildings or railway works.

Through the German papers we in Dresden obtained rather a sorry view of the British nation. Articles appeared regularly to indicate the extent of our guilt in declaring war on Germany, numerous examples of political hypocrisy in our present and past national history were given, and our envy of Germany's commercial prosperity was said to underlie all the measures taken. South Africa, we were informed, had risen to throw off the British yoke, and the Mohammedan population of India and Egypt were about to utilise their opportunities to obtain their freedom. Recruiting, we learned, was slow in England, despite the large monetary offers to those willing to enlist. Public opinion against the British was influenced largely by two factors: the alleged employment of dum-dum bullets by the English and French and accounts of "inhuman" treatment of the civil German prisoners. An example from the Berlin *Lokal-Anzeiger* of Sept. 10th may be quoted: "Cartridges bearing the stamp Art. Dept. Ive. were found. The cartridges are therefore of English manufacture. Unabbreviated it would read: Artillery Depôt Ive (the corresponding French description would be: Dépôt d'Artillerie Ive). There is a small town Ive in the county of Cornwall (St. Ives was probably meant). The presence of an artillery depôt there was previously unknown to us. ....."

Quoting from the *Hamburger Fremdenblatt* of Oct. 26th and describing the conditions at Newbury: "Eight to ten Germans lay in a horse-box in old straw. Each man received two thin blankets, nothing more. At 5 o'clock in the afternoon everyone had to crawl into the straw. The prisoners must cook their own food. ..... A watery soup with the addition of a small amount of fat contained perhaps for each prisoner 1 cubic inch meat. The amount of nourishment was altogether inadequate. Anyone complaining was given three days on water and bread. ....."

At the outbreak of war the enthusiasm for war was apparently intense, and at the beginning of November showed no signs of waning. The significance of the retreat from Paris was obscured by the obvious progress in Belgium and in Poland. From time to time detailed accounts of atrocities, judicially investigated, at the hands of the Russians, French, and Belgians, were published. After the British retreat from Mons there was in the press a general tendency to despise the British soldier, but in the latter months it was frequently mentioned that our infantryman was clever at entrenching himself, that he continued to shoot accurately whatever was occurring around him, and

that he was exceedingly difficult to dislodge once he had taken up any position.

It will be gathered from our correspondent's letter that he had an anxious and sometimes a very painful time, but that on the whole he was very well treated. His great asset was, of course, his knowledge of German.

THE BRITISH RED CROSS SOCIETY.—The summary of the work for the week ending Nov. 24th states that the number of hospitals accepted by the War Office to date is 474, containing beds for 14,061, including 1312 beds accepted during the past week, and distributed among the Army Commands as follows: London, 818; Southern, 4355; Aldershot, 787; Eastern, 3657; Northern, 2336; Western, 1901; Irish, 207. A number of Red Cross Voluntary Aid Detachments are being utilised in connexion with these hospitals.

At the Netley Red Cross Hospital, which is being gradually extended, a large number of huts have now been opened. The dining hall for patients, erected through the donation given by Mr. Augustus Langham Christie, is now complete, and is a fine commodious building. The medical officers have moved into their huts, and one hut has been arranged in cubicles as a ward for sick officers. Owing to an urgent message from the War Office for as much accommodation as possible for Indian sick and wounded, two extra huts have been opened and the recreation room has been equipped temporarily for 50 patients, thus giving accommodation for 130 patients who arrive this week; 360 beds are now available. Two members of a women's Voluntary Aid Detachment are now doing duty in the Hampshire hut.

Motor ambulances have been coming in. During the week past 12 motor ambulances and 3 lorries have been shipped to Boulogne, while 50 motor ambulances have been sent to Newmarket and handed over to the officer commanding, Royal Army Medical Corps.

Nurses have been regularly detailed for duty. One nurse was posted for duty at Boulogne on Nov. 23rd. Twenty nurses were also detailed for duty in the following Home Military Auxiliary Red Cross Hospitals: Nov. 18th: Milton Hill, 2; Swanage, 2; Reigate (Ward), 1; Newbury (Lady Rosemary Portal) Hospital, 2. Nov. 19th: Louth, 1; Mayfield, Sussex, 1; Emsworth, 2. Nov. 20th: Kineton (Lady Willoughby de Broke), 1; Whitchurch (Lady Portal), 1. Nov. 21st: Spondon, 1: Hayling Island, 1; Whitchurch, 1; Duffield, 1; Gerrards Cross, 1. Nov. 23rd: Louth, 1. Nov. 24th: Thane, 1.

Sir Frederick Treves and Sir Rowland Bailey have at considerable length examined the plans of the Waterloo Hospital in association with the architect of the Office of Works. It will be staffed by 25 surgeons and 8 physicians chosen from the leaders of the profession in London who are available. The commandant and matron will be chosen by the War Office. Queen Alexandra and the Princess Victoria have made gifts of money for the equipment of beds, in addition to which 171 beds have already been endowed, His Majesty the King providing four. Each ward will contain about 360 beds and will be a complete hospital in itself, with its own operating theatre and surgical dressing room.

PROFESSIONAL CLASSES WAR RELIEF COUNCIL: MATERNITY NURSING HOME.—The Maternity Nursing Home for Wives of Professional Men, in connexion with the Professional Classes War Relief Council, to which we have already alluded in these columns, is now ready to receive patients. The home is primarily intended for the wives of professional men who are hard hit by the war, special preference being given to those recommended by the husband's professional society or institution. Wives of officers now serving are also eligible to be received. A small weekly charge is made to patients which is inclusive of all expenses. The voluntary medical staff and house committee include Sir Francis H. Champneys, Dr. Mary Scharlieb, Dr. H. J. F. Simson, Dr. Maud Chadburn, Dr. Florence Willey, and Dr. C. Gould May, and patients may also be attended by their own doctor, provided that his services are also rendered free of charge. The home is situated in No. 14, Prince's-gate, S.W., the beautiful house lent by Mr. G. Pierpont Morgan for the purpose, and contains every comfort and opportunity for good nursing. Wide publicity is required in order to insure the successful establishment of this home, and medical practitioners are asked to assist by making its existence known to those needing this type of help. Full particulars can be had on application to Mrs. Chambers, Maternity Nursing Home, 14, Prince's-gate, S.W.

CHLOROFORM IN FRANCE.—We called attention in THE LANCET for Nov. 7th to an alleged shortage of chloroform in the French war hospitals in various localities. Colonel F. N. Maude, C.B., and Vice-Admiral D. M. Riddell have now published a joint letter in the press positively asserting that such is the case, and asking for donations to a fund to enable an emergency anæsthetic centre to be established immediately, so that anæsthetics can at once be dispatched to hospitals in need. Donations, large or small, should be sent to Mrs. William Sharp, 49, Cambridge-street, Hyde Park, W., honorary secretary, or to Mrs. D. M. Riddell, 15, Mount-street, Grosvenor-square, W., honorary treasurer of the fund.—Lady Bagot, R.R.C., honorary secretary of the Church Army war hospital, who is working amongst the wounded at Dunkirk, reports that the shortage of nurses and the lack of chloroform there have rendered the situation one of sore necessity. In response to her urgent representations the Church Army have sent a large consignment of chloroform.

SUSSEX AND THE WOUNDED.—A local correspondent writes:—"Sussex is worthily fulfilling its part in succouring the wounded soldiers, both British and Belgian. In addition to having in its midst the Second Eastern General Hospital at Brighton, the other hospitals in that town and in all parts of the county have so generously offered their help that to enumerate them would be simply to give a catalogue of the various institutions. The Second Eastern General Hospital at Brighton is a collecting centre for the wounded. At one time early in November the whole of the 600 beds forming this hospital, including the annexe at the council school near by, were occupied. Private hospitality in the county has also been great, and patients have been distributed in all directions. In Hove a large private house has been lent for the purposes of a hospital by Mr. d'Avigdor Goldsmid, J.P., and the expense of fully equipping it for the reception of 20 officers and men has been borne by Mrs. Barney Barnato. No expense has been spared and the War Office readily accepted the gift. The medical staff comprise Major W. A. Bowring, consulting physician, Dr. E Hargrave Booth, and Mr. G. D. Kerr, while the matron is Miss Napier Ford, daughter of the late Dr. Alfred Napier Ford."

RED CROSS HOSPITAL FOR DUBLIN.—The scheme for the temporary enlargement of the several Dublin hospitals to accommodate wounded soldiers has been abandoned on account of the impossibility of all the hospitals joining. In the alternative the city of Dublin branch of the British Red Cross Society has decided to proceed with a scheme for building temporary additions to the existing King George V. Military Hospital. An appeal has been issued for funds for this purpose. The intention is to erect a number of pavilions, not exceeding ten in all, each capable of holding 50 beds. The approximate cost of each pavilion will be £1000, and the number to be erected will depend on the response to the appeal. As each pavilion is completed it will be handed over to the military authorities.

THE WOUNDED AT PORTSMOUTH.—Our correspondent writes: "It has been found necessary to increase the accommodation of the Fifth Southern Territorial Hospital. Accordingly, two wards in the Royal Portsmouth Hospital, each with 30 beds, and wards at the Portsmouth union infirmary with 80 beds, have been handed over to the military authorities. The Territorial staff attend to these patients. At the latter hospital most of the cases are surgical and came straight from the front, the dressings having been changed at the field dressing stations and at Calais. There have been two cases of tetanus—one fatal—both after severe shrapnel wounds. Three private houses, providing about 100 beds, have been generously placed at the disposal of the Red Cross authorities for the use of convalescents and cases of minor injuries among our soldiers and allies. Many have been sent from the Alexandra Military Hospital at

Cosham. The medical men and nurses give their services voluntarily, and so also do the orderlies and cooks. The Government make a small grant per soldier per day, which is insufficient to meet the necessary expenses. There are at present representatives of five different nations in Netley Hospital—British, Indians, French, Belgians, and Germans. This is the first time in the history of the hospital that such a thing has happened."

THE WOUNDED SOLDIERS IN BELFAST.—"Of the 58 wounded soldiers who came to the Royal Victoria Hospital," writes our Belfast correspondent, "21 have left convalescent, and of the 30 who were located in the Military Barracks a good number have also left. At the Royal Victoria Hospital, in the discharges from the wounds no anaerobic organisms have been found (as might be expected from the interval that elapsed between the infliction of the injuries and the arrival of the wounded at the hospital), but streptococci of a peculiar strain have been isolated. The committee of the King Edward VII. Memorial (which is to take the form of a block at the Royal Victoria Hospital for X ray and vaccine therapy) have made a special grant to commence work in the pathological department of the hospital, until the new building is completed."

THE students of the Schools of Surgery of the Royal College of Surgeons in Ireland are sending cigarettes, &c., to the students, Licentiates, and Fellows of the College at present serving with His Majesty's Navy and Expeditionary Forces. In order that none of the "old boys" shall be forgotten readers are asked to send names to the Registrar of the College.

2ND (RESERVE) LONDON SANITARY COMPANY.—An additional Reserve Company is being raised for the 2nd London Sanitary Company, R.A.M.C.(T.), and there are a few vacancies for officers. It is essential that officers be medical men with Public Health qualifications. All applications should at once be made to Captain C. M. Fegen, who is now raising this new company at the Duke of York's Headquarters, Chelsea, S.W.

Lieutenant-Colonel A. G. Hamilton, R.A.M.C. (T.F.), Officer Commanding Welsh Border Mounted Brigade Field Ambulance, Drill Hall, Bungay, East Suffolk, writes to say that he will be glad to hear from any medical man wishing to obtain a commission in the Royal Army Medical Corps (Territorial Force). There are several vacancies in the Imperial Service Unit now stationed at Bungay and in the Reserve Unit at Chester. Men joining for the period of the war only obtain an allowance of £20 for outfit, and those joining as Territorial officers for four years receive £40. In both cases a grant of £7 10*s.* is made for the purchase of camp kit. Pay and allowances are as in the Regulars.

EAST ANGLIAN PRACTITIONERS' MOTOR AMBULANCE.—Dr. Arthur Greene and Dr. J. T. C. Nash issued last month an appeal to their colleagues in the counties of Norfolk, Suffolk, and Cambridge, and the Isle of Ely for funds for the provision of a motor ambulance. A generous response has been obtained, and the total amount subscribed up to the middle of last week was upwards of £300, while many of the donors have promised to increase their contributions if necessary. The subscription list will remain open until the end of this month for any other medical practitioner who may wish to contribute.

VEGETABLES FOR SOLDIERS AND SAILORS.—An excellent movement has been started for supplying the men with antiscorbutic food. A Vegetable Products Committee has been formed, with Lord Charles Beresford as president, for the purpose of collecting and delivering fresh fruit and vegetables, jams, preserves, &c., and supplying them to army camps and stations, to warships and hospitals. 2000 cases have already been despatched to the North Sea, and with increased support the work might be much extended.

MOTOR-CARS FOR THE FRENCH RED CROSS.—The aim of the British Ambulance Committee to the French Red Cross, whose headquarters are Wimborne House, Arlington-street, Piccadilly, W., kindly lent by Lady Wimborne, is to make up the deficiency in the number of motor-cars available for ambulance work in France. In this way it is hoped to obviate the delay in transport from the front, which has resulted in much suffering to the wounded of our gallant ally and to save many who would otherwise perish. As a result of the appeal mentioned in THE LANCET of Nov. 14th £15,000 were subscribed within a week, while motor-cars and contributions continue to be received.

FISHMONGERS' HALL HOSPITAL.—In addition to the temporary hospital for officers which has been so admirably equipped at Fishmongers' Hall, the City branch of the British Red Cross Society proposes to establish another hospital of 100 beds in a large building close at hand, in Upper Thames-street, which has been placed at its disposal by the Pearl Assurance Company. In the brief account of the opening of the hospital at Fishmongers' Hall in THE LANCET of Oct. 17th it should have been stated that the honorary visiting physician in charge of the medical cases is Dr. Arthur T. Davies, senior physician to the Royal Hospital for Diseases of the Chest.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE General Council of Medical Education and Registration began its winter session at its offices, 299, Oxford-street, W., on Tuesday, Nov. 24th. The President, Sir DONALD MACALISTER, was in the chair.

New Member.

Dr. E. MAGENNIS took his seat as representative of the Apothecaries' Hall of Ireland for one year from August 1st, 1914. He was introduced by Sir Lambert Ormsby.

President's Address.

Sir DONALD MACALISTER then delivered the presidential address, beginning by pointing out that the Council was meeting for the hundredth session, but that there was no temptation to improve the occasion by reflections on the Council's past history when new history was in the making day by day. He made reference to the death of Sir Christopher Nixon and to the retirement from the Council of Dr. Adye-Curran and the election in the place of the latter of Dr. E. Magennis, Governor of the Apothecaries' Hall of Ireland. He alluded also to the absence of the General Registrar, Mr. Norman King, due to the fact that, holding the rank of major in the London Rifle Brigade, he had volunteered for foreign service. Mr. A. J. Cockington had been appointed, he said, Acting Registrar, and had discharged the duties to the complete satisfaction of the President and the Treasurers. Sir Donald reported the postponement of the new edition of the British Pharmacopœia, and of the regular inspection and visitation of the qualifying examinations, it being foreseen that during the next year occasion will arise for holding special examinations at other than the usual times. Dealing with this point he continued:—

Communications were received from several professional authorities inquiring as to the propriety of modifying or suspending some of the existing regulations in the case of students whose regular course of study for a medical qualification might be interrupted by reason of military service. The Executive Committee thought it right to intimate, by means of a circular addressed to all the licensing bodies, the answer it gave in the name of the Council to the general question thus raised. In view of its importance to the public and to the profession I think it well to repeat here the words of the answer:—

"With regard to the courses of study and examination prescribed for professional qualifications, it is the statutory duty of the General Medical Council to secure the maintenance of such a standard of proficiency as shall sufficiently guarantee the possession by candidates of the knowledge and skill requisite for the efficient practice of their profession. To this end the Council has formulated, for the guidance of the licensing bodies, a series of recommendations respecting such courses. These recommendations represent in general terms the minimum curriculum which, in the Council's opinion, should be required by the licensing bodies; and the Council notes with satisfaction that

the regulations of the several bodies give effect to them. Cases may arise in which, during the present national emergency, the bodies deem it expedient to modify or suspend the application of the regulations to particular candidates; but the Council expects that all such cases shall be duly recorded and reported to the Council in the usual way. The Council feels sure that, in dealing with applications for modification or suspension of their regulations, the bodies concerned will recognise the importance, in the public interest, of maintaining unimpaired the present standard of knowledge and skill required of all who seek to be admitted to the status and privileges of registered practitioners; and will accordingly agree with the Council that it is desirable to secure, in every instance, that the requirements of the minimum curriculum are substantially fulfilled."

We have reason to believe that this statement has commended itself to the authorities concerned and to the profession at large. Multitudes of our medical brethren have nobly offered themselves for service with our troops at home and abroad. Many have already laid down their lives in the performance of that humane duty. The toll of war is not yet complete. We must face the certainty that ere long the ranks of our profession will be sadly depleted. Ample reserves are necessary to supply the places of those who fall on the field of honour. These reserves will be constituted by those whom we are now admitting to the status and privileges of registered practitioners. We shall best honour the memory of the fallen, and most surely safeguard the welfare of our forces and our people, if we do all in our power to secure that the men who enter the profession now are as fully and efficiently trained as their predecessors for the service they will soon be called to render. The need for efficient physicians and surgeons in the field and at home is not less urgent than the need for efficient soldiers and sailors. I have felt it my duty to press this consideration on senior students, who, though they have nearly completed their curriculum, are ready to forego the prospect of early qualification and to enrol themselves straightway in the combatant forces.

It is currently reported that, owing to the war, the number of students of all years enrolled for the present annus medicus is much below the average. If this be true, the risk of a serious shortage in the future supply of qualified practitioners would appear to be imminent. The data in the possession of the Council do not enable me to furnish an answer to the inquiries that have reached me from various public authorities interested in the subject. I have therefore thought it desirable to procure, so far as I could do so on my own responsibility, materials for a trustworthy estimate of the aggregate numbers likely to be ready for qualification in the next two or three years. The statistics, if I succeed in obtaining them, may prove of value from more than one point of view.

An inevitable dislocation of civil practice, both under the National Insurance Act and in general, arose in August and September from the mobilisation of practitioners, attached as surgeons to military hospitals and to Territorial and other service units. We have gratifying evidence that throughout the country the fraternal spirit shown by their colleagues did much to diminish the resulting difficulties experienced by such practitioners in providing for the care of their patients. In most localities a temporary working arrangement has been made by which the needs of the civil community will be met for the present. Plans have moreover been devised, in consultation with the National Insurance and the military authorities, which may, it is hoped, have the effect of removing certain defects in existing arrangements that actual experience has made manifest. The Executive Committee has had submitted to it various proposals bearing on these subjects, and so far as they lay within its province have offered advice upon them.

The magnificent rally of the Overseas Diminions to the defence of the empire has cheered but not surprised us at home. Their troops, fully equipped for service in Europe, are accompanied by a number of able and efficient surgeons. In virtue of the reciprocal relations which the Council has succeeded in establishing throughout the greater part of the empire, the majority of these surgeons are qualified for immediate registration at home, and are thus eligible for commissions in the Army Medical Service. Unfortunately some of the Provinces of Canada have so far omitted to entertain the overtures for reciprocity which this country has made to them. The result is that certain of the surgeons, fully qualified under the provincial law, find themselves debarred from acquiring what may be described as an Imperial status in the British Register. The remedy lies with the provincial authorities. I am not without hope that the representations which have been addressed to these authorities, in the interest of the Imperial services, will induce them to consider afresh the question of reciprocity. The war has made it clear that account must now be taken of its Imperial as well as its local aspects.

In India the legislation for the regulation of medical practice, of which I spoke last May, has now been extended to Madras. Communications from other parts of India bearing on the same subject have been under the consideration of the Executive Committee, and have been promptly dealt with. Negotiations with the India Office and the Government of India, which were entered into at the instance of the Examination Committee, in relation to Indian students of medicine and to members of the subordinate medical services, are still proceeding.

Sir Donald MacAlister then pointed out that the necessary preoccupation of Parliament with measures of emergency had prevented progress with the Midwives (Scotland) Bill and with the Privy Council measure for improving the procedure in the elections of the Direct Representatives. He said that the Highlands and Islands (Medical Service) Board had formed regulations for that service which contained no proposals to which the Council could object, and alluded also to the fact that certain unprofessional methods and laxities in the giving of certificates, which had been noted among practitioners in connexion with the carrying out of the National Insurance Act, had ceased to occur. He continued:—

On August 4th, when war was declared, the House of Commons ordered to be printed the report of the Select Committee on Patent Medicines.[1] The findings and recommendations of the committee deserve the Council's most careful attention. They testify in vigorous terms to the existence of a "grave and widespread public evil," and of an "intolerable state of things," for which new legislation, "rather than merely the amendment of existing laws, is urgently needed in the public interest." The Council, at the instance of its Unqualified Practice Committee, to which this report has been referred, has more than once expressed similar conclusions; but hitherto without practical result so far as the Legislature is concerned. It is earnestly to be desired that even in days like these, when the conservation of the public safety is the paramount objective of the Government, some earnest thought should also be given to the conservation of the public health, which is preyed upon by insidious and unscrupulous mercenaries.

The report of a Departmental Committee of the Board of Education, appointed to consider the "practice of the Board with regard to the acceptance of certificates from unregistered practitioners in dentistry," which was issued in July, may be taken as an indication that the State authorities recognise some at least of the dangers of *laissez faire* in the matter of unqualified practice. After stating that, "whatever may have been the intentions of Parliament in passing the Dentists Act of 1878, the position now is that no person may describe himself as a dentist or have his name inscribed in the Dentists' Register who has not obtained the qualifications required by the body entrusted by the State with the charge of the Register," the Departmental Committee adds: "It would very ill become the Board of Education to adopt a lower standard of general or special education than the minimum prescribed by the State." And the Committee's unanimous recommendation is to the effect that the Board should not agree to the request that the certificates of unregistered practitioners "should be accepted equally with those of registered dentists."

The recent changes in the regulations for death certification, issued by authority of the Registrar-General, mark a similar advance in the official position. We have reason to regret that progress is still so slow. But we have reason also to persevere in our efforts to accelerate it. *E pur si muove.*

Dr. LITTLE, in moving a vote of thanks to the President

[1] THE LANCET, Sept. 5th (p. 653) and 12th (p. 702), 1914.

for his address, congratulated him on the fact that he had managed to leave Germany when the war broke out.

Penal Cases Committee.

Dr. Little was elected to the vacancy on the Penal Cases Committee occasioned by the death of Sir Christopher Nixon.

Degrees of Allahabad University.

The Executive Committee reported that it had considered an application from the University of Allahabad for the recognition of its degrees of M.B., B.S., for registration in the Colonial List of the Medical Register of the United Kingdom, and had adopted the following resolution :—

That any person who holds the degrees of M.B., B.S., of the University of Allahabad shall be entitled to be registered in the Colonial List of the Medical Register, provided he satisfies the Registrar of the General Medical Council regarding the other particulars set forth in Part II. of the Medical Act, 1886.

Restoration of Name to the Medical Register.

The PRESIDENT announced that the Acting Registrar had been directed to restore to the Medical Register the name of Mr. Walter Randall Knightley.

The Council adjourned.

WEDNESDAY, NOV. 25TH.

The Council resumed its sittings at its offices, 299, Oxford-street, W. Sir DONALD MACALISTER, the President, was in the chair. The whole of the sitting was occupied with the hearing of charges against practitioners.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a Congregation held on Nov. 21st the following medical degrees were conferred :—

M.D.—L. M. Routh, Caius ; and C. Mackenzie, Emmanuel.
M.B.—J. Deighton, Trinity.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held recently the following candidates passed in the subjects indicated :—

Surgery.—W. Brown (Section II.), Oxford and King's College Hospital; C. H. Fischel (Section II.), Middlesex Hospital; G. F. Malden (Sections I. and II.), Royal Free Hospital; H. R. Partridge (Sections I and II.), Leeds; T. J. R. Scholtz (Sections I. and II.), Amsterdam; and T. R. Scott Edinburgh.
Medicine.—J. C. P. Bayley (Section II.), Manchester; H. A. Cottin (Sections I. and II.), Caracas and Middlesex Hospital; C. E. Clarke (Sections I. and II.), Bombay; H. Morrison (Sections I. and II.), St. Mary's Hospital; H. R. Partridge (Sections I. and II.), Leeds; C. H. Philips (Sections I. and II.), London Hospital; and F. Simpson (Section I.), Charing Cross Hospital.
Forensic Medicine.—R. H. Chadwick, Leeds; H. A. Cottin, Caracas and Middlesex Hospital; C. S. Dodson, Cambridge and University College Hospital; C. J. G. Exley, University College Hospital and Leeds; and J. D. Ferguson and H. R. Partridge, Leeds.
Midwifery.—C. E. Clarke, Bombay; R. Curle, Guy's Hospital; H. R. Partridge, Leeds; and C. H. Philips, London Hospital.
The Diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery :—J. C. P. Bayley, W. Brown, C. H. Fischel, G. F. Malden, and H. R. Partridge.

UNIVERSITY OF LONDON.—At the Third (M.B., B.S.) Examination for Medical Degrees for internal and external students held recently the following candidates were successful :—

Honours.—*Richard Alun Rowlands, London Hospital; and †Douglas H. D. Wooderson, B.Sc., St. Bartholomew's Hospital.
* Distinguished in Medicine.
† Distinguished in Midwifery and Diseases of Women.
Pass.—Frederick Hubert Bray, London Hospital; Henrietta Frances Davies, London (Royal Free Hospital) School of Medicine for Women; Arthur Rawdon Carrington Doorly, St. Thomas's Hospital; John Beatson Dunning, Guy's Hospital; Una Griffin, London (Royal Free Hospital) School of Medicine for Women; Francis Joseph Hallinan, Charing Cross Hospital; Mary Esther Harding, London (Royal Free Hospital) School of Medicine for Women; Daniel Thomas Harris, Victoria University of Manchester; Jessie Eva Hart, London (Royal Free Hospital) School of Medicine for Women; Clement Hoyle Heppenstall, University of Leeds; Rustam Merwan Kharegat, University College Hospital; William Morris Lanadale, Guy's Hospital; Leon Levene, University College Hospital; Andrew Carey McAllister, King's College Hospital; Helen Marion Macpherson Mackay and Ethel May Magill, London (Royal Free Hospital) School of Medicine for Women; William John Morris University College Hospital; Margaret Russell Paterson and Edna Mary Powell, London (Royal Free Hospital) School of Medicine for Women; John Bromley Rawlins, St. Mary's Hospital; Reginald Hugh Simpson, St. Bartholomew's Hospital; Grace Stapleton, London (Royal Free Hospital) School of Medicine for Women; Ernest Haines Walker, St. Thomas's Hospital; and Thomas Burges Welch, St. Bartholomew's Hospital.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Army Medical Officers and Income Tax.

SOME concession in the matter of income tax is to be made by the Government in the Finance Act to medical officers who have joined the armed forces of the Crown in consequence of the war. Professional men are assessed on an average of three years' earnings, but it was pointed out during the debate in committee on the Finance Bill on Tuesday evening that it would be most unfair to apply this method of assessment to men who for a large part of the current year have sacrificed a big share of their professional income in order to serve in the field.—Sir JOHN SIMON, the Attorney-General, admitted the force of this contention. The amendment made in the Bill at his instance laid down that officers and men who had served or were serving at home or abroad in the military or naval forces of the Crown in connexion with the present war would not be taxed either for income tax or super tax on the three years' average, but only upon the income actually earned in the present financial year (1914–15). The same concession was made to those who had been engaged in connexion with the war in any work abroad of the British Red Cross Society, the St. John Ambulance Brigade, or kindred organisations. The Attorney-General was asked how this concession would affect medical men serving with the forces. He replied that all such officers serving under military law would receive the concession whether serving at home or abroad.

HOUSE OF COMMONS.

THURSDAY, NOV. 19TH.

Army Medical Officers.

Sir H. RAPHAEL asked the Under Secretary of State for War whether retired army medical officers holding retired pay appointments of medical officer in charge of troops and military hospitals at depôts necessitating in peace time an inconsiderable amount of work, and now, since the commencement of the war, requiring all-day service and constant orderly duty day and night owing to the increase of work and expansion of hospital duty, had been refused kit allowance and the same rate of pay granted to retired medical officers who had been recalled to duty; and, if so, whether he would consider the justice and advisability of equalising the financial position of these two classes of officers.—Mr. H. BAKER (on behalf of Mr. TENNANT) replied: These officers, in common with other retired officers who were in the employment of the War Department in peace, are being treated in accordance with the regulations under which they accepted their appointments. If there are any grounds for varying the regulations they shall be considered.

Sir H. RAPHAEL: Can the honourable gentleman say why, if this matter has engaged the attention of the War Office, have they failed to acknowledge my letters giving full reasons for the proposed equalisation of scales of payment?—Mr. BAKER: Those are the regulations under which they were employed.

Sir H. CRAIK: Is it not the case that these men, who have had long experience, are at a salary of £150 working 12, 13, and 14 hours per day?—Mr. BAKER: I do not know whether it is so. It may be that they are working long hours, but many people are. The regulations under which they are serving are regulations which they have accepted. If there is a good case for altering them it will be considered.

Sir H. CRAIK: Is it not the case that temporary doctors who are acting in their places are receiving as much as £1 4s. per day whilst these men are only receiving a salary of £150?—Mr. BAKER: If the honourable gentleman would submit grounds on which he thinks the regulations should be altered I promise him they will be considered.

The Health of the New Army.

Mr. MORRELL asked the Under Secretary of State for War whether his attention had been called to the number of cases of pneumonia that had recently occurred in some of the camps in which the new army was being trained; and whether he would grant a return showing the health of the troops in the various camps.—Mr. TENNANT answered: The returns of admissions to hospitals regularly come before us. My honourable friend is not correct in thinking that the number of cases of pneumonia is abnormal. There has been no rise in the admission ratio in spite of the fact that a large proportion of troops are under conditions of camp life. There is no undue prevalence of infectious disease anywhere, and my noble friend being able to give this assurance, does not think that the suggested return would be in the general interest.

MONDAY, NOV. 23RD.

Medical Arrangements of the New Army.

Mr. HINDS asked the Under Secretary of State for War what arrangements were being made for providing a medical service for the new armies; and, pending the organisation of such a service, what provision was made for the treatment of troops in the new battalions or brigades.—Mr. TENNANT answered: The new army will be provided with medical arrangements on the same basis as the Expeditionary Force. Large training establishments have been formed at which the subordinate personnel is being instructed in their active service duties. Pending the completion of these arrangements the new army is receiving medical attendance on exactly the same lines as the regular army in times of peace. Temporarily commissioned officers in the Royal Army Medical Corps and locally employed civil practitioners have been engaged in sufficient numbers to meet all requirements, and nearly 100 of the Royal Army Medical Corps Reserve of Officers have been recalled to duty. So far there has been no difficulty in securing the services of a sufficient number of fully qualified medical men, and it is not anticipated that there will be any shortage in the immediate future. All the military hospitals in the country have been very greatly expanded, and several large civil and private hospitals are working in conjunction with them. Up to the present there has been no lack of hospital accommodation.

TUESDAY, NOV. 24TH.

Medical Attendance for Soldiers' Dependents.

Sir H. CRAIK asked the Secretary to the Board of Education, as Vice-Chairman of the Committee with regard to the provision of free medical attendance and drugs when necessary to the dependents of men serving with the army, whether any arrangements had been arrived at as to the offer of the British Medical Association to provide free medical attendance to such dependents, and what arrangements had been made for the supply of the necessary medicines.—Dr. ADDISON replied: The Special Committee set up for the purpose have prepared a scheme for utilising the generous offer of the British Medical Association, and have issued instructions to Local Representative Committees in England and Wales, together with a supply of special medical books for issue to suitable dependents of men serving with the army or the navy. The scheme is now in operation throughout England and Wales, except in a few areas where a local scheme had been adopted. The local arrangements vary, but as a rule the books, which are accepted as evidence of *bona fides* by doctors and chemists working under the scheme, are issued by the Local Representative Committee, assisted by the Soldiers' and Sailors' Families Association. The scheme has also been brought into operation in Scotland, where it is being worked by the Soldiers' and Sailors' Families Association. The Pharmaceutical Society of Great Britain generously offered on behalf of their members to supply the necessary medicines and appliances at cost price. The cost price of medicines and appliances supplied under the scheme is being defrayed from a grant made out of the Prince of Wales's Fund. The work of checking and pricing prescriptions is being undertaken at considerable expense by the Pharmaceutical Society under a system approved and inspected by the Committee.

BOOKS, ETC., RECEIVED.

ARNOLD, EDWARD, London.
A System of Clinical Medicine dealing with the Diagnosis, Prognosis, and Treatment of Disease, for Students and Practitioners. By Thomas Dixon Savill, M.D. Lond. Fourth edition, thoroughly revised. Price 25s. net.

BAILLIÈRE, TINDALL, AND COX, London.
Problems in the Accommodation and Refraction of the Eye: A Brief Review of the Work of Donders. By Ernest Clarke, M.D., B.S., F.R.C.S. Price 2s. 6d. net.

BELL, G., AND SONS, London.
Spiritual Healing. By the Rev. W. F. Cobb, D.D. Price 5s. net.

ENCYCLOPÆDIA BRITANNICA COMPANY, 125, High Holborn, London.
Belgium, Italy, and Switzerland. By the Rev. G. Edmundson, Member of the Netherlands Association of Literature; H. Wickham Steed, formerly Correspondent of the *Times* in Rome; and the Rev. W. A. B. Coolidge. Price 2s. 6d. net.
France. By Paul Wiriath, Director of the École Supérieure, Paris; and J. E. C. Bodley. Price 2s. 6d. net.
Germany and Her Colonies. By Walter Alison Phillips, Lecky Professor of Modern History, Trinity College, Dublin; James Wycliffe Headlam; and Arthur William Holland, formerly Scholar of St. John's College, Oxford. Price 2s. 6d. net.
Russia and the Balkan States. By Sir Donald Mackenzie Wallace, Prince Kropotkin, C. Mijatovich, formerly Servian Minister in London, and J. D. Bourchier. Price 2s. 6d. net.
Wars of the 19th Century. By Maj.-Gen. C. W. Robinson, C.B.; Colonel Maude, C.B.; Lieut.-Col. J. H. Verrinder Crowe; and others. Price 2s. 6d. net.
Austria-Hungary and Poland. By H. Wickham Steed; W. A. Phillips, Lecky Professor of Modern History, Dublin; and David Hannay. Price 2s. 6d. net.

MURRAY, THOMAS, London. KNAPP, DREWETT AND SONS, Kingston-on-Thames.
Dr. Finny's First Aid: A Notebook for Ambulance Students. By W. E. St. Lawrence Finny, M.D., M.Ch. Price 6d. net.

SAUNDERS (W. B.) COMPANY, London.
Military Hygiene and Sanitation. By Frank R. Keefer, A.M., M.D., Lieut.-Col. Medical Corps, U.S. Army. Fully illustrated. Price 6s. 6d. net.

SMITHSONIAN INSTITUTION, Washington.
Miscellaneous Collections, Vol. LXIII., No. 1. Atmospheric Air in Relation to Tuberculosis. By Guy Hinsdale, A.M., M.D., Secretary of the American Climatological Association. 93 plates.

THACKER, W., AND CO., London and India.
Lyon's Medical Jurisprudence for India, with illustrative cases. By L. A. Waddell, C.B., C.I.E., LL.D., M.B. Fifth edition. Price 22s.

UNIVERSITY PRESS, Cambridge. C. F. CLAY, London.
The Chemical Examination of Water, Sewage, Foods, and other Substances. By J. B. Purvis, M.A., University Lecturer in Chemistry and Physics as applied to Hygiene and Public Health, St. John's and Corpus Christi Colleges, Cambridge; and T. R. Hodgson, M.A., Public Analyst for the County Boroughs of Blackpool and Wallasey. Price 9s. net.

UNWIN, T. FISHER, London.
Dreams. By Henri Bergson. Translated, with introduction, by Edwin E. Slossan. Price 2s. 6d. net.

Appointments.

Successful applicants for vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.

OATES, GEOFFREY E., M.D., B.S. Lond., M.R.C.P. Lond., D.P.H. Camb., has been appointed Medical Officer of Health, School Medical Officer, and Medical Superintendent of the Isolation Hospital, Urban District of Ilford.

RAW, STANLEY, M.D., B.S. Durh., F.R.C.S. Edin., has been appointed Honorary Surgeon to the Sunderland Royal Infirmary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BARNSLEY, BECKETT HOSPITAL AND DISPENSARY.—Second House Surgeon, unmarried. Salary £100 per annum, with apartments, board, and laundry.

BARROW-IN-FURNESS, NORTH LONSDALE HOSPITAL.—House Surgeon. Salary £150 per annum, with residence, board, and laundry.

BECKENHAM, URBAN DISTRICT OF.—Temporary Medical Officer of Health and School Medical Officer. Salary at rate of £425 per annum.

BIRKENHEAD AND WIRRAL CHILDREN'S HOSPITAL, Woodchurch-road.—House Surgeon for six months. Salary £100 per annum, with board, residence, and laundry.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House Surgeon. Salary £100 per annum, with board and laundry.

BIRKENHEAD UNION INFIRMARY.—Female Resident Assistant Medical Officer. Salary at rate of £150 per annum, with board, washing, and apartments.

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Church-street.—Junior House Surgeon. Salary £100 per annum, with residence, board, &c.

BIRMINGHAM, YARDLEY-ROAD SANATORIUM AND ANTI-TUBERCULOSIS CENTRE.—First Assistant Medical Officer. Salary £250 per annum, with board and residence.

BLACKBURN UNION WORKHOUSE AND COTTAGE HOMES.—Resident Assistant Medical Officer, unmarried. Salary £150 per annum, with apartments, rations, washing, and attendance.

BRADFORD POOR-LAW UNION, ST. LUKE'S HOSPITAL AND UNION HOUSE.—Assistant Resident Medical Officer, unmarried. Salary £150 per annum, with rations, apartments, and washing.

BRADFORD ROYAL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with board, residence, and washing.

BRIDGWATER HOSPITAL.—House Surgeon, unmarried. Salary at rate of £125 per annum, with board, lodging, and washing.

BRIGHTON ISOLATION HOSPITAL.—Junior Resident Medical Officer. Salary £100 per annum, with board and lodging.

BRIGHTON, ROYAL SUSSEX COUNTY HOSPITAL.—Assistant House Surgeon, unmarried. Salary £80 per annum, with apartments, board, and laundry.

BRISTOL GENERAL HOSPITAL.—Resident Obstetric Officer for six months. Salary at rate of £120 per annum, with board, residence, &c.

CARDIFF, KING EDWARD VII.'s HOSPITAL.—House Surgeons for six months. Salary at rate of £100 per annum, with board, residence, and laundry. Also Resident Surgical Officer. Salary £160 per annum, with board, laundry, and apartments.

CARDIFF, KING EDWARD VII. WELSH NATIONAL MEMORIAL ASSOCIATION.—Assistant Tuberculosis Physicians. Salary £350 per annum.

CARLISLE, CUMBERLAND AND WESTMORLAND ASYLUM, Garlands.—Junior Assistant Medical Officer, unmarried. Salary £200 per annum, with board, lodging, and washing.

CHINGFORD, HOSPITAL FOR INFECTIOUS DISEASE.—Resident Medical Officer. Salary £200 per annum, with rooms and board.

CITY OF WESTMINSTER UNION INFIRMARY, Fulham-road, S.W.—Second Assistant Medical Officer and Third Assistant Medical Officer. Salaries £160 and £140 per annum respectively, with board, residence, and washing.

COVENTRY AND WARWICKSHIRE HOSPITAL, Coventry.—Junior House Surgeon. Salary £100 per annum, with rooms, board, washing, and attendance.

DERBY MENTAL HOSPITAL.—Senior Assistant Medical Officer. Salary £250 per annum, with board, apartments, and washing.

DUDLEY, GUEST HOSPITAL.—Senior Resident Medical Officer. Salary £120 per annum, with board, residence, attendance, and washing.

DUMFRIES AND GALLOWAY ROYAL INFIRMARY.—Assistant House Surgeon. Salary £65 per annum, with board and washing.

DUNFERMLINE, CARNEGIE DUNFERMLINE TRUST.—Female Assistant School Medical Officer.

ESSEX EDUCATION COMMITTEE.—Medical Inspector. Salary £300 per annum.

FAREHAM, HANTS COUNTY ASYLUM.—Locum Tenens. Salary 5 guineas a week, with apartments, board, washing, and attendance.

FIFE DISTRICT ASYLUM.—Assistant Medical Officer. Salary £140 per annum, with rooms, board, and attendance.

GLOUCESTER, GLOUCESTERSHIRE ROYAL INFIRMARY AND EYE INSTITUTION.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and washing.

GREAT YARMOUTH HOSPITAL.—House Surgeon, unmarried. Salary £200 per annum, with board, lodging, and washing.

HALIFAX UNION POOR-LAW HOSPITAL, Salterhebble.—Resident Medical Officer. Salary £140 per annum, with apartments, rations, and washing.

HAMPSHIRE COUNTY COUNCIL.—Tuberculosis Officer. Salary £500 per annum.

IPSWICH, EAST SUFFOLK AND IPSWICH HOSPITAL.—Resident House Physician. Salary at rate of £100 per annum, with board, apartments, &c.

KEIGHLEY, BOROUGH OF.—Assistant School Medical Officer and Assistant Medical Officer of Health. Salary £300 per annum.

KENSINGTON AND FULHAM GENERAL HOSPITAL, Earl's Court, S.W.—Dental Surgeon.

LEEDS GENERAL INFIRMARY.—Resident Casualty Officer. Salary £125 per annum, with board, residence, and laundry.

LEICESTER ROYAL INFIRMARY.—Two Resident Assistant House Surgeons. Salary £80 per annum.

MACCLESFIELD GENERAL INFIRMARY.—House Surgeon. Salary £150 per annum, with residence, board, and laundry.

MAIDSTONE, KENT COUNTY ASYLUM.—Female Junior Assistant Medical Officer, unmarried. Salary £250 per annum, with board, quarters, attendance, washing, &c.

MANCHESTER, COUNTY ASYLUM, Prestwich.—Assistant Medical Officer, unmarried. Salary £250 per annum, with board, apartments, attendance, and washing.

MANCHESTER INSTITUTION AT CRUMPSALL.—Second Resident Assistant Medical Officer, unmarried. Salary £180 per annum, with rations, apartments, fire, light, washing, and attendance.

MANCHESTER NORTHERN HOSPITAL FOR WOMEN AND CHILDREN, Parkplace, Cheetham Hill-road.—House Surgeon. Salary £120 per annum, with apartments and board.

MANCHESTER ROYAL EYE HOSPITAL.—Junior House Surgeon. Salary £80 per annum, with residence, board, and washing.

METROPOLITAN EAR, NOSE, AND THROAT HOSPITAL, Fitzroy-square, W.—House Surgeon. Salary £150 per annum.

MERSTHAM, NETHERNE ASYLUM.—Medical Superintendent. Salary £800 per annum, with house and garden.

MILLER GENERAL HOSPITAL FOR SOUTH-EAST LONDON, Greenwich-road, S.E.—Senior House Surgeon for six months. Salary £100 per annum, with board, residence, and laundry.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.—Senior and Junior House Physicians. Salary £50 per annum each, with board and residence.

NEWCASTLE-UPON-TYNE CITY HOSPITAL FOR INFECTIOUS DISEASES.—Resident Medical Assistant. Salary £200 per annum, with board, lodging, &c.

NEWPORT (MON.), ROYAL GWENT HOSPITAL.—Resident Medical Officer. Salary for first six months at rate of £100 per annum, second six months £125, and third six months £150, with board, residence, and laundry.

NOTTINGHAM GENERAL HOSPITAL.—Senior House Physician. Salary £120 per annum, with board, residence, and laundry.

PLYMOUTH COUNTY BOROUGH INSURANCE COMMITTEE (NATIONAL INSURANCE ACT, 1911).—Two Medical Practitioners.

PRESTON ROYAL INFIRMARY.—Assistant Resident Medical and Surgical Officer. Salary £120 per annum, with board, residence, and laundry.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Female Assistants to Pathologist. 1. Full-time appointment, salary £150 per annum. 2. One half-time appointment, salary £50 per annum. Also Acting Assistant Physician.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—House Physician for six months. Salary at rate of £75 per annum, with board, lodging, and washing.

ROYAL WATERLOO HOSPITAL FOR CHILDREN AND WOMEN, S.E.—Senior and Junior Resident Medical Officers. Salaries at rate of £90 and £70 per annum respectively, with board and washing.

ST. MARYLEBONE INFIRMARY, Rackham-street, Notting Hill, W.—Temporary First Resident Assistant Medical Officer, unmarried. Salary £225 per annum, with apartments, rations, and washing. Also Third Assistant Resident Medical Officer, unmarried, for six months. Salary at rate of £180 per annum, with apartments, rations, and washing.

ST. PANCRAS NORTH INFIRMARY, Dartmouth Park Hill, Highgate, N.—Junior Assistant Medical Superintendent. Salary at rate of £140 per annum, with apartments, board, and washing.

ST. PANCRAS SOUTH INFIRMARY, Pancras-road, N.W.—Senior Assistant Medical Superintendent and Senior Assistant Medical Officer of House adjacent. Salary at rate of £225 per annum, with board, apartments, and washing. Also Female Junior Assistant Medical Officer. Salary at rate of £150 per annum, with apartments, board, and washing.

SALFORD ROYAL HOSPITAL.—Resident Surgical Officer and Casualty House Surgeon for six months. Salary at rate of £120 and £100 per annum respectively, with board and residence.

SALFORD UNION INFIRMARY.—Resident Assistant Medical Officer, unmarried. Salary £150 per annum, with apartments, attendance, and rations.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Senior and Junior House Surgeons. Salaries £100 and £80 per annum respectively, with board, residence, &c.

SHEFFIELD, EAST-END BRANCH OF THE CHILDREN'S HOSPITAL.—House Surgeon. Salary £120 per annum, with board and residence.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Physician, unmarried. Salary £80 per annum, with board, lodging, and washing.

SHEFFIELD ROYAL INFIRMARY.—House Surgeon. Salary £100 per annum, with board and residence.

SHEFFIELD, SOUTH YORKSHIRE ASYLUM, Wadsley.—Fourth Assistant Medical Officer. Salary £250 per annum, with apartments, board, and attendance.

SOUTH SHIELDS, INGHAM INFIRMARY AND SOUTH SHIELDS AND WESTOE DISPENSARY.—Junior House Surgeon. Salary £115 per annum, with residence, board, and washing.

STOKE-ON-TRENT, INFECTIOUS DISEASES HOSPITAL, Bucknall.—Female Resident Assistant Medical Officer. Salary £150 per annum, with apartments, board, washing, and attendance.

SWANSEA UNION INSTITUTION.—Resident Assistant Medical Officer. Salary £295 per annum.

TAUNTON, TAUNTON AND SOMERSET HOSPITAL.—Senior House Surgeon. Salary £120 per annum, with board, lodging, and laundry.

TRURO, ROYAL CORNWALL INFIRMARY.—House Surgeon, unmarried. Salary £100 per annum, with rooms, board, and washing.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, residence, &c.

WAKEFIELD, CARDIGAN SANATORIUM.—Assistant Medical Officer. Salary £250 per annum.

WAKEFIELD, WEST RIDING ASYLUM.—Assistant Medical Officer. Salary £250 per annum, with apartments, board, washing, and attendance. Also Locum Tenens Assistant Medical Officer. Salary as arranged, with apartments, board, and travelling expenses.

WALSALL AND DISTRICT HOSPITAL.—Junior House Surgeon and Anæsthetist. Salary £110 per annum, with board, residence, and laundry.

WARRINGTON INFIRMARY AND DISPENSARY.—Senior House Surgeon. Salary at rate of £200 per annum, with board, apartments, and laundry.

WARRINGTON, LANCASHIRE COUNTY ASYLUM, Winwick.—Assistant Medical Officer, unmarried. Salary £250 per annum, with board, apartments, attendance, and washing. Also Locum Tenens Medical Officer, unmarried. Salary 6 guineas per week, with apartments, board, attendance, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Resident Medical Officer and House Surgeon for six months. Salary at rate of £125 per annum each, with board, rooms, and laundry.

WORCESTER COUNTY AND CITY ASYLUM, Powick, near Worcester.—Junior Assistant Medical Officer. Salary £225 per annum, with board, lodging, and washing.

WORCESTER GENERAL INFIRMARY.—Resident Medical Officer. Salary £150 per annum, with board, residence, and washing.

WORKSOP VICTORIA HOSPITAL AND DISPENSARY.—Medical Officer and House Surgeon. Salary £150 per annum, with rooms, coal, light, and attendance.

YORK COUNTY HOSPITAL.—House Physician for six months. Salary at rate of £150 per annum, with board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

CARLYLE.—On Nov. 22nd, at Menlove-avenue, Liverpool, the wife of Oliver Carlyle, F.R.C.S., of a daughter.

FITZWILLIAMS.—On Nov. 21st, at Grosvenor-street, W., the wife of D. C. L. Fitzwilliams, F.R.C.S., Captain R.A.M.C.T., of a son.

FRASER.—On Nov. 15th, at Belsize-avenue, Hampstead, the wife of Dr. D. Hammand Fraser, of a son (Roderick Andrew).

THOMAS.—On Nov. 21st, at Colston-parade, Redcliffe, Bristol, the wife of J. M. M. Thomas, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

DALE—BRODIE.—On Oct. 26th, at Hong-Kong, W. Chalmers Dale, M.B., B.S. Lond., of the English Presbyterian Mission, Shanghang, to Eliza Mabel (Elsie), eldest daughter of Mr. and Mrs. Robert Brodie, New Barnet.

RECKITT—NEWMAN.—On Nov. 5th, 1914, at St. Andrew's Church, West Kensington, by the Rev. E. D. Castledon, Edward B. Reckitt, M.D., of Little Hadham, Herts, to Evelyn, second daughter of the late Henry Newman, of The Plantation, Wolverton, Basingstoke.

SCOTT—HICKS.—On Nov. 23rd, at Copford Parish Church, Lieutenant E. Scott, R.A.M.C., of St. George's Hospital, to Agnes E. Hicks, daughter of Mr. H. T. Hicks and Mrs. Hicks, of Walton House, Copford, Essex.

SMYTHE—CLOUTMAN.—On Nov. 14th, at St. Mary Redcliffe, Bristol, Henry James Drew Smythe, M.B., Lieutenant R.A.M.C., to Enid Audrey, youngest daughter of Mr. and Mrs. Curtis Cloutman, Bristol.

DEATHS.

CAZENOVE.—On Nov. 18th, William Reginald Cazenove, M.R.C.S., L.R.C.P., of West Norwood Lodge, Knight's Hill, London, aged 40 years.

SMITH.—On Nov. 14th, Eustace Smith, M.D., F.R.C.P. Lond., in his 80th year.

STOCKWELL.—On Nov. 20th, at Bruton, Somerset, Frederick Stockwell, M.D. Lond., aged 76 years.

YEO.—On Nov. 20th, suddenly, I Burney Yeo, M.D., F.R.C.P. Lond.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

During the continuance of the war the size of THE LANCET *will be curtailed. This has been necessitated primarily by the difficulty in ensuring an adequate supply of paper, but the contributions of most of our correspondents on the continent have failed, and will fail, to reach us. Many special features of* THE LANCET *have had to be sacrificed for the time, and while we ask the indulgence of our readers for this, we promise to restore them at the earliest possible opportunity.*

THE ATTRACTIONS OF DAVOS.

IN his annual report, just received at the Foreign Office, Dr. Bernard Hudson, the British Consul at Davos, writes that in the year 1913 there were 10,936 invalids resident, besides 12,595 tourists and 8101 long-stay visitors—total 31,632, as compared with 31,055 in 1912. Of these, in 1912 2099 were British, while in 1913 the number of British was 2236, thus showing an increase of 137. This (observes Dr. Hudson) is eminently satisfactory, and all the more so in view of the fact that for some years past the numbers of British visitors have been steadily declining; in 1910 they numbered 2513, in 1911 2267, and in 1912 only 2099, this latter being the smallest British total since records have been officially kept. This decrease in the number of British visitors may be put down partly to the desire to favour home resorts, of which many have sprung up of late years, and also partly, no doubt, to the erroneous impression prevailing at home that owing to the number of invalids Davos is not a safe place to go to. It only requires a visit to dispel these ideas. However, the fact that the numbers of British have increased in 1913, and also again this year up to March 31st, serves to show that the merits of the dry, sunny, windless Alpine climate are once again beginning to make their claim felt, especially as regards the treatment of pulmonary tuberculosis.

Davos has developed to an extraordinary degree as a ski-ing centre of late years, and now an increasing number of British people go for this particular sport. There are large numbers of both long and short tours to choose from. Davos may be called the home of British skating, and it is here that this particular branch of the art is seen to the best advantage. The club is in a very flourishing condition. Bobbing and tobogganning always form a prominent part of the winter sports, and the two excellent runs—i.e., Klosters and the Schatzalp—are always much in demand. There is also a good rink for curling, capable of accommodating four games simultaneously.

The Queen Alexandra Sanatorium has had a highly successful year, and many invalids, who otherwise would not have been able to go to Davos, have felt the benefit of this excellent institution. The new wing of 18 beds was opened last year, while this year a fine suite of up-to-date medical rooms has been added, and also a new X ray room. The project for making a kūr-park for the use of summer visitors has been passed and the work begun. This will be a great boon to the place and will, it is hoped, attract visitors during the summer.

A SOLDIER'S FRENCH BOOK.

THE *Soldiers' English and French Conversation Book*, compiled by Walter M. Gallichan (London: T. Werner Laurie. Pp. 142. Price 1*d*. net), should prove of considerable service to those for whom it is intended. It differs from all other conversation books in the important particular that all its vocabulary and all its phrases deal with only military subjects or with a selection of everyday subjects concerning which Tommy Atkins is particularly likely to wish to communicate his ideas to French people, military or otherwise. The little book deals with landing, marching, train, camping, transport, action, convoy, aviation, trenches, wounds, &c., and includes ordinary conversation dealing with food, smoking, money, weights and measures, &c. There are also considerable vocabularies of strictly military terms and of everyday words. A phonetic pronunciation is given which, on the whole, is fairly good. The correspondence between symbols and pronunciation is, however, so arbitrary that without a distinct prior agreement, acquired by ear and eye together, as to what symbols shall stand for in the way of sound, there is little reasonable ground to hope that two people would interpret the transliteration alike. On the whole, however, a Frenchman would be able to recognise what was meant in French by an English person making the effort to pronounce the phonetic forms as though they were English words.

TO CYCLIST MEDICAL OFFICERS.

To the Editor of THE LANCET.

SIR,—Would one of your readers tell me what are the duties of the medical officer to a cyclist battalion, who is not a member of the Royal Army Medical Corps?

I am, Sir, yours faithfully,

Nov. 24th, 1914. SEPTOCYCLE.

A MISSING OFFICER.

WE are asked to state that if any member of the Royal Army Medical Corps has heard or knows anything of the whereabouts of Second Lieutenant Mark R. Pease, 1st Battalion East Yorkshire Regiment, who has been missing since Oct. 20th, it would be a great kindness if he would communicate with his father, Colonel Pease, Beverley, East Yorks. Mr. Pease, at the time he was reported missing, was engaged in hand-to-hand fighting near Prémesques, half way between Lille and Armentières.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In a notice sent you recently of the Alvarenga prize of the College of Physicians of Philadelphia there was an error in the title of Dr. Sheffield's paper; it should read as follows: "Idiocy and Allied Mental Deficiencies in Infancy and Early Childhood." I shall be greatly obliged if you will make this correction.—I am, Sir, yours faithfully,

FRANCIS R. PACKARD, M.D.,
Secretary, College of Physicians of Philadelphia.

Philadelphia, Nov. 7th, 1914.

AMBIGUITY.

WE observed the following paragraph in an evening newspaper this week:—

> "The intolerable nuisance of mud-splashing by motor-cars" is to be discussed by the Westminster City Council with a view to the use of a contrivance to prevent it being made compulsory.

It must be a curious contrivance.

A GOLD medal is to be presented by Mr. Henry S. Wellcome to Dr. Frederick B. Power to commemorate his directorship of the Wellcome Chemical Research Laboratories for 18½ years. In addition Mr. Wellcome is causing a life-size portrait of Dr. Power to be painted.

R. L. G.—The official "Manual of Elementary Military Hygiene," price 6*d*., can be obtained in London from Wyman and Sons, or abroad through agencies of T. Fisher Unwin.

Diwan Chand.—The publisher is Mr. William Heinemann, Bedford-street, London, W.C. The book could probably be obtained through Messrs. Butterworth and Co., of Calcutta.

K.—We know of no suitable work.

Medical Diary for the ensuing Week.

SOCIETIES.

ROYAL SOCIETY, Burlington House, London, W.

THURSDAY.—M. de Lange: On the Thermophone—a New Form of Telephone.

ROYAL SOCIETY OF MEDICINE, 1, Wimpole-street, W.

TUESDAY.

OCCASIONAL LECTURE in the Robert Barnes Hall: at 5 P.M.
Dr. D Barty King: Some Recent Experiences of Germany in War Time (during Detention in Germany) and their Lessons (illustrated by lantern slides).
Visitors invited.

SECTION OF PATHOLOGY (Hon. Secretaries—Gordon W. Goodhart, C. Price-Jones): at 8.30 P.M.
At the Pathological Department, St. Bartholomew's Hospital, E.C.
Dr. Lazarus-Barlow: The Effect of Radium on Different Types of Cells.
Mr. S. G Shattock and Dr. L. S. Dudgeon: Cytocides.
Mr. R. Mackenzie Wallis: The Polarimetric Method for Estimating Protective Ferments in the Blood.

WEDNESDAY.

SECTION OF OPHTHALMOLOGY (Hon. Secretaries—Leslie Paton, Elmore W. Brewerton): at 8 P.M.
Discussion:
Will be opened by Mr. Harold B. Grimsdale on the Necessity for an Exact Definition of Blindness.
Clinical Cases will be shown.
Those who wish to take part are requested to send in their names to one of the Honorary Secretaries of the Section.

THURSDAY.

SECTION OF OBSTETRICS AND GYNÆCOLOGY (Hon. Secretaries—C. Hubert Roberts, Cuthbert Lockyer): at 8 P.M.
Specimens:
Dr. Clifford White: (1) Tuberculosis of an Ovarian Cyst; (2) Interstitial Tuberculous Salpingitis.
Dr. H. Macnaughton-Jones: Myomatous Uterus with Large Numbers of Intra-uterine and Intra-mural Growths.
Dr. Trevor B. Davies: (1) Sarcoma of the Cervix; (2) Sarcoma of the Broad Ligament.
Dr. C. Hubert Roberts: Pyometra and Cancer.
Dr. Cuthbert Lockyer: Case of Double Ureter Simulating a Parlovarian Cyst in the Right Broad Ligament.

Short Communications:
Dr. Thomas G. Stevens: Two Cases of Hysterectomy for Placenta Prævia, with specimens.
Dr. C. Hubert Roberts and Dr. Edward Smeed: Case of Placenta Prævia with Unusual Sequelæ.
Dr. Herbert Spencer: Case of Extensive Cancer of the Cervix with Pyosalpinx well Seven Years after Wertheim's Hysterectomy.

FRIDAY.
SECTION OF LARYNGOLOGY (Hon. Secretaries—Cecil I. Graham, W. D. Harmer): at 4 P.M.
Cases and Specimens:
Will be shown by Dr. William Hill, Sir William Milligan, Dr. Elphick, Mr. C. W. Hope, Mr. Stuart-Low, Mr. Graham, and others.

ROYAL SOCIETY OF ARTS, John-street, Adelphi, W.C.
WEDNESDAY.—8 P.M., Dr. W. R. Ormandy: Britain and Germany in Relation to the Chemical Trades.

NORTH-EAST LONDON CLINICAL SOCIETY, Prince of Wales's Hospital, Tottenham, N.
THURSDAY.—4.15 P.M., Clinical Meeting.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY, Society's Rooms, West London Hospital, Hammersmith-road, W.
FRIDAY.—8.30 P.M., Meeting.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.
MONDAY.—10 A.M., Dr. Simson: Diseases of Women. 10.30 A.M., Medical Registrar: Demonstration of Cases in Wards. 12 noon, Dr. Bernstein: Pathological Demonstration. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. D. Armour: Operations. Dr. Pritchard: Bacterial Therapy Department. Mr. B. Harman and Mr. Gibb: Diseases of the Eye.
TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. Dr. Owen: Demonstration of Cases in Wards. 12 noon, Mr. T. Gray: Demonstration of Fractures, &c. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin.
WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations. Dr. Simson: Diseases of Women. Mr. Gibb: Diseases of the Eye.
THURSDAY.—9 A.M., Dr. Bernstein: Bacterial Therapy Department. 10.30 A.M., Dr. Simson: Gynæcological Demonstration. 12 noon, Lecture:—Dr. G. Stewart: Neurological Cases. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. D. Armour: Operations. Mr. B. Harman: Diseases of the Eye.
FRIDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 10.30 A.M., Surgical Registrar: Demonstration of Cases in Wards. 12.15 P.M., Lecture:—Dr. Bernstein: Applied Pathology. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Baldwin: Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. Dr. Pernet: Diseases of the Skin.
SATURDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. Mr. B. Harman: Eye Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Mr. Pardoe: Operations.

NORTH-EAST LONDON POST-GRADUATE COLLEGE, Prince of Wales's General Hospital, Tottenham, N.
MONDAY.—Clinics:—10.30 A.M., Surgical Out-patient (Mr. B. Gillespie). 2.30 P.M., Medical Out-patient (Dr. T. R. Whipham); Gynæcological (Dr. J. B. Banister). 3 P.M., Medical In-patients (Dr. R. M. Leslie).
TUESDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Nose, Throat, and Ear (Mr. H. D. Gillies). X Rays and Electrical Methods (Dr. Metcalfe). 3.30 P.M., Medical In-patient (Dr. A. J Whiting). Special Demonstration of Cases illustrating the Diagnosis and Treatment of Disease by the X Rays (Dr. J. Metcalfe).
WEDNESDAY.—Clinics:—2 P.M., Throat Operations (Mr. Gillies). 2.30 P.M., Children's Out-patient (Dr. T. R. Whipham); Skin (Dr. G. N. Meachen); Eye (Mr. R. P. Brooks). 5.30 P.M., Eye Operations (Mr. Brooks).
THURSDAY.—2.30 P.M., Gynæcological Operations (Dr. A. B. Giles). Clinics:- Medical Out-patient (Dr. A. J. Whiting); Surgical (Mr. Carson); X Rays and Electrical Methods (Dr. Metcalfe).
FRIDAY.—2.30 P.M., Operations. Clinics:—Medical Out-patient (Dr. A. G. Auld); Surgical (Mr. B. Gillespie); Eye (Mr. R. P. Brooks). 3 P.M., Medical In-patient (Dr. G. P. Chappel).

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen-square, Bloomsbury, W.C.
TUESDAY.—3.30 P.M., Clinical Lecture:—Dr. J. Collier: Aphasia.
FRIDAY.—3.30 P.M., Clinical Lecture:—Dr. J. Collier: Acute Myelitis.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL, Gray's Inn-road, W.C.
FRIDAY.—3 P.M., Lecture:—Mr. Stuart-Low: The Ear.

THE THROAT HOSPITAL, Golden-square, W.
MONDAY.—5.15 P.M., Special Demonstration of Selected Cases.
THURSDAY.—5.15 P.M., Clinical Lecture.

CHADWICK PUBLIC LECTURES, London School of Economics, Clare-market, Kingsway, W.C.
FRIDAY.—8.15 P.M., Sir Ronald Ross, K.C.B.: Government and Military Sanitation in the Tropics (illustrated with lantern slides).

MANCHESTER HOSPITALS POST-GRADUATE CLINICS.
THURSDAY.—ANCOATS HOSPITAL, Mill-street.—4.30 P.M., Dr. C. E. Lea: Physical Signs in Heart Disease.

For further particulars of the above Lectures, &c., see Advertisement Pages.

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(Taken daily at 8.30 a.m. by Steward's Instruments.)
THE LANCET Office, Nov. 25th, 1914.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
Nov. 19	30·366	S.W.	0·20	43	43	34	34	34	Foggy
,, 20	30·304	S.E.	...	65	41	34	36	38	Overcast
,, 21	30·118	N.E.	...	47	40	34	35	36	Cloudy
,, 22	29·840	N.E.	...	55	41	36	37	39	Cloudy
,, 23	29·790	N.E.	...	43	41	36	36	38	Overcast
,, 24	29·900	NNW	0·12	57	45	36	35	36	Overcast
,, 25	29·812	N.W.	...	62	48	36	40	41	Fine

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